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Master's thesis

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The Use of CAT Tools in University Translation Courses: A Case Study Based on Teaching with Memsource

Použití CAT nástrojů v univerzitních překladatelských kurzech: Případová studie založená na výuce v programu Memsource

In Prague, 2018

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I would like to express my sincere gratitude to Mgr. et Mgr. Vít Baisa, Ph.D. for kindly taking over the supervision of my thesis from doc. Aleksandar Kavgić and to the faculty of the Department of South Slavonic and Balkan studies, especially prof. PhDr. Hana Gladkova, CSc., Mgr. Sandra Vlainić, and Mgr. Karel Jirásek, Ph.D., for supporting me with practical advice and assisting me with the administration related to the thesis.

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole nor in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

Prohlašuji, že jsem diplomovou práci vypracoval samostatně, že jsem řádně citoval všechny použité prameny a literaturu a že práce nebyla využita v rámci jiného vysokoškolského studia či k získání jiného nebo stejného titulu.

Datum Podpis

Abstract

Even though CAT tools are becoming increasingly important, and almost indispensable, in the translator's work routine, the academic environment is still very hesitant to implement them into translation and localisation courses. The primary objective of this master's thesis is to analyse and determine how CAT tools are used in translation courses at selected Balkan universities, which is important from the point of view of translation pedagogy as a baseline for further research. The secondary objective of the dissertation is to possibly, depending on the results of the primary objective, devise pedagogical practices that help universities increase the teaching effectiveness of their current methods of using CAT tools. Finally, the tertiary objective is to eventually design an introductory course that could help potentially interested universities to implement CAT tools in their curricula.

The main motivation of this master's thesis is that the employment of CAT tools should, in the future, positively affect employability of translation students in comparison with those who do not have such experience. This motivation stems from the fact that there are very few scientific papers and reference works on how to use CAT tools in teaching at institutions of higher education, let alone papers that deal with syllabi reforms which aim at increasing employability in the domain of translation and/or translation studies.

The research is going to be done among universities that are part of the Academic Edition programme of Memsource, a Prague-based translation and project management platform. The introductory course is thus going to be primarily designed for the Memsource platform, but its application will be possible in other cloud-based platforms and tools as well. The best practices defined in the thesis then are applicable with any CAT tool.

Keywords

CAT tools, translation technology, localization, training, education, employability, Memsource

Abstrakt

Přestože jsou CAT nástroje pro práci překladatele čím dál důležitější, až téměř nezbytné, univerzitní prostředí se stále zdráhá zavést je do svých kurzů zabývajících se lokalizací. Cílem této diplomové práce je analyzovat a určit, jak se CAT nástroje používají na vybraných balkánských univerzitách, což je z hlediska výuky překladatelství důležité jako základ pro další výzkum. Sekundárním cílem práce je na základě výsledků zmíněného výzkumu navrhnout pedagogické postupy, které zefektivní stávající metody výuky CAT nástrojů. Konečným cílem je pak vytvořit kurz, který by mohly využít univerzity se zájmem o implementaci výuky CAT nástrojů do svých osnov jako úvod do těchto nástrojů.

Primární motivací této diplomové práce je absence vědeckých prací zabývajících se použitím CAT nástrojů na vysokých školách a případových studií, které by mohly být využity jako referenční materiál. Ještě výraznější nedostatek je pak prací pojednávajících o restrukturalizaci sylabů za účelem zvýšení zaměstnatelnosti studentů. Zařazení CAT nástrojů do výuky přitom může do budoucna zaměstnatelnost pozitivně ovlivnit, což je cíl, který si klade tato diplomová práce.

Výzkum bude proveden mezi univerzitami, jež jsou součástí akademického programu v Praze sídlící společnosti Memsource, která je vývojářem a zároveň poskytovatelem platformy pro překlady a projektový management. Navržený kurz bude proto především určen pro danou platformu, využit však může být i v rozhraní jiných cloudových řešení. Systém ověřených přístupů k výuce překladových technologií, který bude v této práci definován a popsán, bude pak možné využít s jakýmkoliv CAT nástrojem.

Klíčová slova

CAT nástroje, překlad, technologie, lokalizace, výuka, vzdělávání, zaměstnatelnost, Memsource

Table of contents

List of Figures

List of Abbreviations

ALPAC – Automatic Language Processing Advisory Committee
API – Application Programming Interface
BA – Bachelor's degree
CAT – Computer-assisted Translation
CSV – Comma-separated values
ECTS – European Credit Transfer and Accumulation System
EHEA – European Higher Education Area
EMT – European Master's in Translation
EU – European Union
FAHQMT – Fully-automated High-Quality Machine Translation
FTP – File Transfer Protocol
HAMT – Human-assisted Machine Translation
HT – Human Translation
IATE – Inter-Active Terminology for Europe
ICT – Information and Communications Technology
L2 – Second language
LQA – Language Quality Assurance
LSP – Language service provider
MA – Master's degree
MAHT – Machine-assisted Human Translation
MENA – Middle East and North Africa
MSA – Modern Standard Arabic
MT – Machine Translation
MXLIFF – Memsource XML Localisation Interchange File Format
NDA – Non-disclosure agreement
NGO – Non-governmental organization
NMT – Neural Machine Translation
OCR – Optical Character Recognition
OTCT – Optimising Translator Training through Collaborative Technical Translation
QA – Quality Assurance
RBMT – Rule-based Machine Translation
SL – Source language
TAP – Think-aloud protocol
TB – Termbase
TBX – Termbase Exchange format
TL – Target language
TM – Translation Memory
TMX – Translation Memory Exchange format

Preface

The Information Age we live in begun with the mass spreading of personal computers and general technological advancements that allowed not only free and fast information transfer, but also the creation of tools to automate some of the tasks humans have to deal with. Since then, the digital world has been developing for nearly 50 years and has further decreased the number of repetitive tasks humans had had to handle themselves.

With this huge shift in thinking, working, and people's approach to life, a need for different learning and training process has inevitably emerged. In an information-driven digital world, an information-driven training based on the use of the new technologies is imperative, otherwise the products of such a training, i.e. students, the future of the oncoming development, would not be able to deliver the results expected from them.

A student is a person who actively pursues his or her goals in deepening human knowledge and who, by doing so, shapes the future of many others. Therefore, it is not acceptable that such a person is trained in the paradigms of the past. On the contrary, the trainers should aim to train *future* professionals, to train individuals able to withstand the ever-so-dynamic currents of the advancing 21st century—in fact, students who are now starting their studies will not work at the beginning of our century like this generation. Some of them were even born in it not being able to experience the perks of the past centuries. If the Law of Accelerating Returns described further in this thesis is correct, they are going to live and work in a completely different world.

With todays' technological knowledge, it is clearly not possible to train students in approaches, tools, and areas that have not yet emerged. What is possible, however, is to prepare individuals capable of embracing the constant change. The aim of this thesis then is to help a specific segment of students to become such individuals. As this thesis is written at the Department of South Slavonic and Balkan Studies at the Faculty of Arts, Charles University, the definition of the student segment has naturally arisen from the focus of the department.

This thesis then is going to aim on students from small language departments (to be defined later in the preface) with a special emphasis on the areal focus of the department—the Balkans. The second part of the segment specification is an outcome of professional practice

of the author of this thesis, who specializes in enhancing translation courses around the world with CAT technology. Thus, the target segment of translation students studying at small language departments has been defined, and so has been the type of translation technology that is to be further defined in the section 1.1 Computer-Assisted Translation Tool: A Definition.

The selection of this type of departments, however, is not affected only by the department this thesis is written at. These departments are generally area-based with general language, philological focus. Therefore, they are not designed to train translators, but they still have to supply the specific market as translators between small languages are trained here. This issue is further explained and defined at the beginning of the chapter 2 Practice.

It is important now to specify what a small language and a small language department are as these terms are a fundamental part of this thesis. A small language, as opposed to a big language, is an economically inferior language whose use is not spread worldwide. Often, the language is only used by a specific group of people, the group in many cases being a nation. From the translation market point of view, it is a language that is often considered secondary or tertiary as the number of speakers and their purchasing power is minimal on a global scale.

A small language department then is a department where these small languages are taught. As mentioned above and, mainly, in the chapter 2 Practice, these departments tend to have the obligation to train future translation professionals although not being entirely translation-oriented. To compare, the big language departments do not have to train translators as specific translation departments for the languages exist.

It is apparent that this definition is still blurry and the division between small and big might be ambiguous with some languages. It is not necessary for this thesis to draw an exact line, however, as it is sufficient to see the difference globally. If a representative of a department feels he or she could take advantage of the results of this thesis, the thesis is meant for them.

In accordance with findings and observations of lecturers like Willi G. Scherf from the University of Leipzig (described in the section University of Leipzig), this thesis believes that the proper implementation of CAT tools into translation courses can not only enhance the technology courses themselves, but also gradually move the whole curriculum towards a more

future-oriented programme that utilizes the latest tools. The presence of technology in the curriculum can spark off an *Information Revolution* in the classrooms. By using the tools, students not only learn about the tools, but also about their diversity, and thus they can develop a critical approach to the tools—and eventually information—that is so crucial in our era.

In this regard, the author of this thesis believes that this thesis is not off-topic for the department it is written at. Even though it does not deal explicitly with south Slavic philology, this thesis aims to further enhance the quality of professionals the department creates and thus, in the upshot, move forward the whole discipline. The ability to train professionals able to utilize the power of current technological trends for the good of their professional fields is the ultimate goal of this thesis.

1 Theory

This chapter has the purpose of establishing the boundaries of the theoretical frameworks within which this thesis operates. First, necessary terminology is defined, including a specification of what is considered a Computer-Assisted Translation (CAT) tool, specifying and defining its components. Then, the chapter presents the rationale why CAT tools should be part of translation curricula, taking into consideration the latest trends in translator training and defined competence frameworks. Finally, the chapter offers several examples of how CAT tools were taught historically and how they are taught now. This last section is also later used as a part of the source of best practices defined in the practical part.

1.1 Computer-Assisted Translation Tool: A Definition

When writing about teaching CAT tools, the term CAT tool has to be defined. Throughout the history, the definition has been developing and so has been its relationship to other terms from the area of translation technology. Nowadays, the definition is a lot clearer but still bears a certain amount of uncertainty. The first section serves the purpose of providing the necessary theoretical context and historical background for the definition of a CAT tool in the second section, and a more detailed presentation of the most common components of a CAT tool in the final section.

1.1.1 Historical Background

The translation technology's birth is credited to Warren Weaver, who was the first to suggest using the so-called "electronic brains", i.e. computers, for translation in 1949.[1] He also proposed a connection between translation and cryptography, building on the boom of code-breaking technology from World War 2.[2] The "*lack of linguistic knowledge on the part of computer engineers led to overly optimistic and naïve assumptions that computational tractability of translation between natural human languages is basically nothing more than*

[1] KRÁL, Pavel. The Role of Technology in Translation Studies. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. P. 190

[2] SOMERS, Harold L., ed. Computers and translation: a translator's guide [online]. Amsterdam: John Benjamins, 2003. Benjamins translation library, v. 35. P. 4. Available at: http://site.ebrary.com/lib/natl/Doc?id=10032038

decoding a cipher."[3] Fifteen years later, at least $12 million had been invested into Machine Translation (MT) in the US alone,[4] which amounts to approximately $123.4 million in today's prices.[5] The engineers' optimism led to a belief that a Fully Automated High Quality Machine Translation (FAHQMT) is possible.

In 1966, however, the Automatic Language Processing Advisory Committee (ALPAC) conducted an extensive research on the effectivity of MT and found out that the technology was twice as expensive as human translation (HT), while being less accurate and even slower.[6] This led to disillusionment and, consequently, the development of MT was discontinued.[7]

Instead of MT, another approach emerged in the development of translation technologies. FAHQMT having been deemed unattainable,[8] a compromise between pure MT and HT was seen as a way of using computers to help human translation. Thus, Human-Assisted Machine Translation (HAMT) and Machine-Assisted Human Translation (MAHT)[9] became goals.

[3] KRÁL, Pavel. The Role of Technology in Translation Studies. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. P. 190

[4] SOMERS, Harold L., ed. Computers and translation: a translator's guide [online]. Amsterdam: John Benjamins, 2003. Benjamins translation library, v. 35. P. 4. Available at: http://site.ebrary.com/lib/natl/Doc?id=10032038

[5] The US Inflation Calculator. Available at: http://www.usinflationcalculator.com/

[6] National Research Council. A Report by the Automatic Language Processing Advisory Committee. Language and Machines: Computers in Translation and Linguistics. Washington, DC: The National Academies Press, 1966. Available at: https://doi.org/10.17226/9547

[7] GRANELL, Ximo. Multilingual information management: information, technology and translators. Amsterdam: Elsevieri–Chandos Publishing, 2015. Chandos Information Professional Series. ISBN 978-1-84334-771-2. P. 25.

[8] Based on the rapid evolution of different MT systems, e.g. Rule-Based Machine Translation (RBMT), Statistical Machine Translation (SMT), and most lately the Neural Machine Translation (NMT), the use of MT has increased dramatically in the last few years and the usage of pure MT output can be seen in documents, where understandability is a factor overweighing flawless quality. However, the development of MT is not a concern of this thesis.

[9] QUAH, Chiew Kin. Translation and technology. Houndmills, Basingstoke: Palgrave Macmillan, 2006. Palgrave textbooks in translating and interpreting. ISBN 1-4039-1832-5. P. 6.

Level 1	Text Processing Telecommunications Software Terminology Management Systems Others (DTP, Converter)
Level 2	Text Analysis Automatic Dictionary Look-up Bilingual Text Retrieval Other (SGML)
Level 3	Machine Translation

Figure 1: Melby's division of CAT tool components into different levels created by Austermühl (2001: 9).[10]

Thanks to this new direction, the idea of term banks (TB) and translation memories (TM) emerged, which, as early as in the 80s, enabled Alan Melby to propose the idea of integrating these and other tools into one "translator's workstation" [11]. Thus, the basic concept of CAT tools was created to finally start appearing on the market in the 90s.[12]

For the terminological needs of this thesis, MAHT overlaps with the now widely used CAT technology, while HAMT lies in the core of the emerging post-editing practice. It is important to note, however, that such a terminological comparison is not accepted by all researchers.[13]

[10] AUSTERMÜHL, Frank. Electronic tools for translators. Manchester: St. Jerome Publishing, 2001. ISBN 1900650347. P. 9.
[11] MELBY, Alan K. Multi-level translation aids in a distributed system. In: HORECKÝ, Ján, ed. COLING 82: Proceedings of the Ninth International Conference on Computational Linguistics, Prague, July 5–10, 1982. Amsterdam: North-Holland Publishing Company, 1982. Pp. 215–220.
[12] SOMERS, Harold L., ed. Computers and translation: a translator's guide [online]. Amsterdam: John Benjamins, 2003. Benjamins translation library, v. 35. P. 14. Available at: http://site.ebrary.com/lib/natl/Doc?id=10032038
[13] HUTCHINS, John W. and SOMERS, Harold L. An Introduction to Machine Translation [online]. London: Academic Press, 1992. ISBN 0-12-362830-X. Available at: http://www.hutchinsweb.me.uk/IntroMT-TOC.htm

For example, Hutchins and Somers who came up with a slightly different classification, as illustrated in Figure 2 below. This thesis will be based on the approach proposed by Schadek and Moses in 2001.[14] This approach has been chosen because of the further development of translation technology—nowadays, HAMT is not considered translation, but rather post-editing, as humans only edit the output of machine-translated text and do not carry out translation per se.

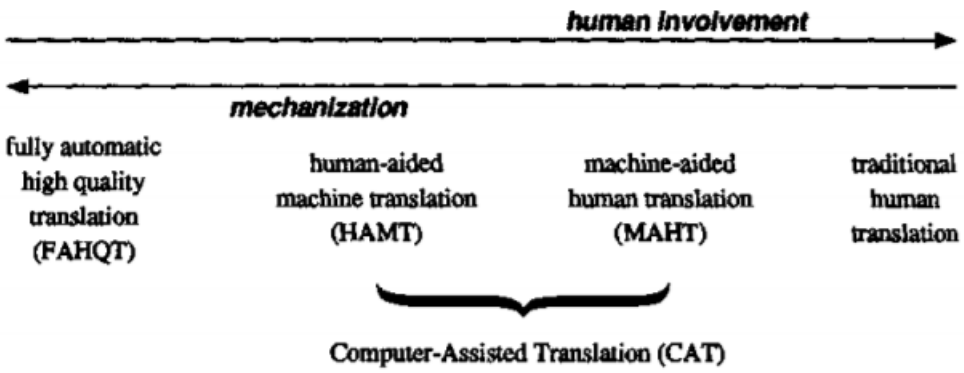

Figure 2: The continuum of human and machine translation according to Hutchins and Somers (1992: 148)[15]

1.1.2 Terminology Definition

A CAT tool, or a translator's workstation/workbench, can in Lynne Bowker's words, "*be understood to include any type of computerized tool that translators use to help them do their job*."[16] However, Bowker understands the problem of such a broad definition: "*This could encompass tools such as word processors, grammar checkers, e-mail, and the World Wide Web (WWW). While these are certainly valuable, possibly even indispensable, tools for a modern translator, they will not be treated within the scope of this book*."[17]

[14] SCHADEK, S. and MOSES, T. Machine Translation: An Introduction and Some History. Language and Computers Seminar. Gießen: Justus-Liebig-Universität Gießen, 2001.
[15] HUTCHINS, John W. and SOMERS, Harold L. An Introduction to Machine Translation [online]. London: Academic Press, 1992. ISBN 0-12-362830-X. P. 148. Available at: http://www.hutchinsweb.me.uk/IntroMT-TOC.htm
[16] BOWKER, Lynne. Computer-aided translation technology: a practical introduction. Ottawa: University of Ottawa Press, 2002. ISBN 0776605380. P. 6.
[17] BOWKER, Lynne. Computer-aided translation technology: a practical introduction. Ottawa: University of Ottawa Press, 2002. ISBN 0776605380. P. 6.

In compliance with Bowker's approach, this thesis will also only cover the use of computerized tools that are exclusive to the work of translators and that are part of modern translation workbenches, i.e. CAT tools. For the needs of this thesis then a CAT tool is defined as a translators' workbench consisting of numerous elements that provide various features to assist the translator in the translation process. Therefore, it is also necessary to define what these features are.

1.1.3 Components of Computer-Assisted Translation Tools

The two main elements of every CAT tool[18] have already been mentioned: the TM and the TB. In short, a TM is a "*database that stores previously translated sentences that can be retrieved in future translation projects in an attempt to prevent repetitive, time-consuming work. Pre-translated sentences in the text are retrieved via fuzzy matching, leaving only parts of sentence that do not have matches to the translator*."[19]

In Austermühl's words then TMs are "*databases that store translated texts together with the corresponding original texts. However, texts are not stored as wholes; they are stored in translation units or segments. In most cases, a translation unit corresponds to a sentence, although smaller segments such as table cell entries, list elements or even single words (e.g. a button on a dialogue box) can also be translation units*."[20]

It should be noted, however, that, thanks to CAT tools, TM is not simply a passive source of already translated segments; through a TM, CAT tools actively propagate these past translations and compare their suitability with other suggestions, even within the same text. Furthermore, a TM does not only provide fuzzy (approximate) matches, but also full (100%) matches and in some tools even in-context (101%) matches that take the preceding and succeeding segments, i.e. the context, into consideration.

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[18] GRANELL, Ximo. Multilingual information management: information, technology and translators. Amsterdam: Elsevieri–Chandos Publishing, 2015. Chandos Information Professional Series. ISBN 978-1-84334-771-2. Pp. 23–24.

[19] TUNICK, Laraine. Finding a cost-effective translation solution. In: MultiLingual Computing & Technology, #53 Supplement Guide to Translation. Sandpoint: MultiLingual Computing Inc., 2003, 53(1). P. 14.

[20] AUSTERMÜHL, Frank. Electronic tools for translators. Manchester: St. Jerome Publishing, 2001. ISBN 1900650347. P. 135.

A TB, on the other hand, is a "*program that catalogues words and phrases along with pertinent related information in a database in a manner conducive for use in linguistic applications*".[21] The TB can be understood as a dynamic personal topic-oriented dictionary that is actively propagating its contents as one translates. In Lynne Bowker's words, the TB is "*essentially a type of automatic dictionary look-up. As the translators moves through the text, the terminology recognition component compares items in the source text against the contents of the term base, and if a match is found, the term record in question is displayed for the user to consult.*"[22]

With a TB, in the ideal scenario, translators should not have to consult external terminology databases as it provides them with a guide how to translate the given terms in compliance with the client's expectations. It is important to note, however, that in reality the quality of TBs provided by a client can vary and it may nevertheless be necessary to consult external sources.

[21] LANGEWIS, Chris. What is language technology? In: MultiLingual Computing & Technology, #51 Supplement Guide to Translation. Sandpoint: MultiLingual Computing Inc., 2002, 51(7). P. 6.
[22] BOWKER, Lynne. Computer-aided translation technology: a practical introduction. Ottawa: University of Ottawa Press, 2002. ISBN 0776605380. P. 81.

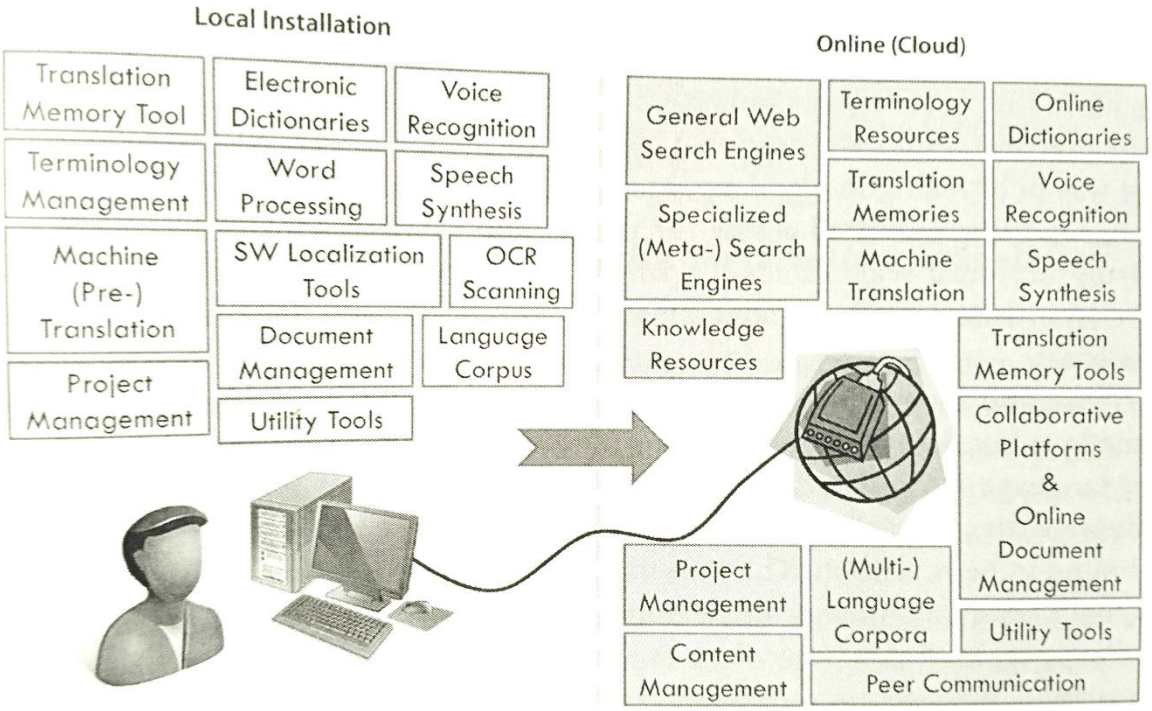

Figure 3: Types of computer-assisted translation tools according to Král (2012: 191).[23]

A CAT tool, however, is not limited to TM and TB technologies. Other technologies that are part of todays' CAT tools can include dedicated translation word processing software, quality assurance (QA) tools, electronic dictionaries, voice recognition tools, built-in MT, software localization tools, optical-character recognition (OCR) scanning tools, etc.[24] With the rise of cloud technologies, collaborative project management platforms are also being included into the CAT interface thus creating platforms incorporating not only the translator's workbench itself, but also a place for project managers to manage the whole translation workflow from a client request to a final product delivery.[25]

[23] KRÁL, Pavel. The Role of Technology in Translation Studies. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. P. 191.

[24] KRÁL, Pavel. The Role of Technology in Translation Studies. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. P. 191.

[25] Memsource Cloud: Features. Available at: https://www.memsource.com/features/

Since different CAT tool providers offer different feature-sets in their tools, in compliance with their goal and focus, it is necessary to choose a CAT tool which would represent the baseline for the research. After analysing the current state of the CAT tool market, it was decided that the features of Memsource platform should serve as a baseline. The reason for this is the fact that Memsource represents the latest step in the evolution of CAT technologies and is the first CAT tool in the market which was originally developed as a cloud-based tool. Further explanation on why Memsource was chosen can be found in the practical part of this thesis.

For the purpose of this thesis then, the following features are going to be considered a part of a CAT tool platform: TM, TB, MT, QA, editor (a word processor with the tagging function and segmenting function), a document search engine, a TM alignment tool, in-context preview, file storage and management, project management, project analytics, and APIs that allow users to connect their own or third-party tools.[26] It should be noted, however, that this list does not have the intention to be perceived as an exhaustive list of all features that could in some sense and in some situation be considered a part of a CAT tool.

1.2 Reasons to Train CAT Tools at Universities

Now that it has been fully defined how a CAT tool is understood in this thesis, it is important to clarify why a CAT tool should be a part of programmes whose goal is to prepare their graduates for a career of a professional translator, be it a freelancer or an in-house translator. To do so, one needs to understand what a professional translator must know and be capable of in the modern translation market: what competences and skills he or she is expected to possess.

By its very nature, translation is an extremely diverse profession which requires not only excellent knowledge of two languages and cultures, and translation theory. These are important constituents of a translator's skillset, but they alone are not sufficient. It should be noted that translators are not only language specialists, they also must be, among other things, domain experts, active businessmen, and technology enthusiasts.[27]

[26] Memsource Editions. Available at: https://www.memsource.com/pricing/

[27] EMT Expert Group. Competences for professional translators, experts in multilingual and multimedia communication. Brussels: 2009. Available at: https://ec.europa.eu/info/sites/info/files/emt_competences_translators_en.pdf

1.2.1 Competence Frameworks

In 2000, Neubert created a set of competences that a translator needs to be able to create a translation that is equivalent[28] to the source text. These are:

1. Language competence
2. Textual competence
3. Subject competence
4. Cultural competence
5. Transfer competence[29]

In Neubert's words, the language competence is "*sine qua non of translation*"[30], since one cannot create any translation without the knowledge of two different languages. By textual competence, a discourse proficiency is meant, an ability to identify textual features. Cultural competence allows the translator to tackle cultural embeddedness, while transfer competence offers the translator strategies to successfully transfer information from source language (SL) into target language (TL).

The subject competence is to be defined more thoroughly, since it is often neglected in university-level translation preparation.[31] Neubert says that "*subject knowledge, i.e. encyclopaedic as well as highly specialist knowledge, is, of course, not necessarily active knowledge for them [translators], and available all the time, but they must know the ways and*

[28] The problematics of equivalence are not a focus of this thesis.
[29] These competences were put into practice in an undergraduate translation programme at Aston University, where Schäffner created the programme in compliance with them. Source: SCHÄFFNER, Christina. Running before Walking? Designing a Translation Programme at Undergraduate Level. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. Pp. 143–155. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981
[30] NEUBERT, Albrecht. Competence in Language, in Languages, and in Translation. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. Pp. 7. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981
[31] ULRYCH, Margherita. Training Translators: Programmes, curricula, practices. In: TENNENT, Martha, ed. Training for the new millennium: pedagogies for translation and interpreting [online]. Amsterdam: John Benjamins, 2005. Benjamins translation library, v. 60. EST subseries. ISBN 9789027294715. Pp. 5–17. Available at: http://site.ebrary.com/lib/natl/Doc?id=10075860

means of how to access this when they need it. Translators don't know everything and they need not know everything but they must know where to look for it and where to find it."[32]

With the rising number of translators, however, a need has emerged for a translator to find a specialism, a field about which he *does know* everything. Professional translators are no longer expected to be able to translate any kind of text, they have become translators-specialists on a specific domain, with some experts even advising students to only pick a single domain.[33]

These competences alone are still not enough to create a modern-day professional. In 2009, Susanne Göpferich has created a translation competence model that covers even more of what a translator needs to know.[34]

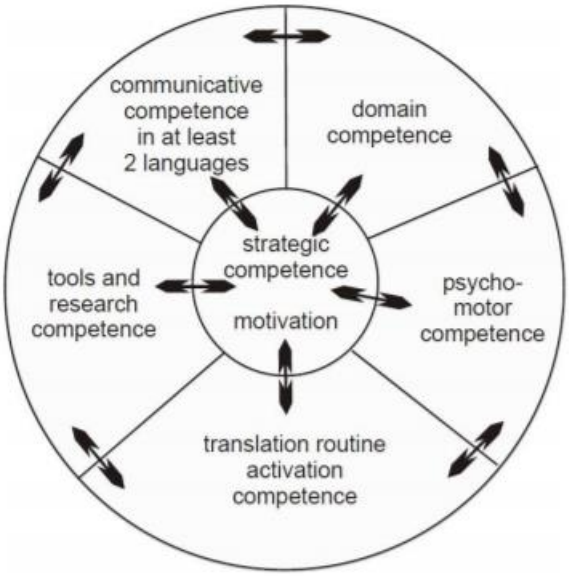

Figure 4: Translation competence model according to Göpferich/Jääskeläinen (2009: 16).

[32] NEUBERT, Albrecht. Competence in Language, in Languages, and in Translation. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. Pp. 9. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981

[33] ŠANCA, Filip. How to Start a Translation Career: A Guide for Students. Interview with Dragoș Ciobanu. Memsource Blog, 2017. Available at: https://www.memsource.com/blog/2017/08/11/technology-an-essential-part-of-modern-translation-curricula/

[34] GÖPFERICH, Susanne and JÄÄSKELÄINEN, Riitta. Process research into the development of translation competence: Where are we, where do we need to go? In: Across Languages and Cultures. Budapest: Akadémiai Kiadó, 2009, 10(2). ISSN 1588-2519. Pp. 169-191.

The graph above adds two competences:

6. Psycho-motor competence
7. Tools and research competence

As for the psycho-motor competence, Krüger and Serrano Piqueras, who have applied Göpferich's translation competence model to their "in vivo" translation course, say: "*When students work on a translation project, there are, in addition to the actual translation process, a variety of additional tasks that rely on the psycho-motor competence, for the most part administrative and project management-related tasks. An example would be the storing and organizing of the various files provided by the client for the translation project. […] The more one is able to automate these skills, the more cognitive capacity is freed for more important tasks (like problem solving or formulating sentences)*."[35]

The tools and research competence then covers not only the CAT tools described in previous chapter, it is also the ability to handle other tools, "*like email applications, navigation tools, FTP clients, or desktop search applications*."[36]

Göpferich (the European Master's in Translation (EMT) Expert Group has created a very similar model as seen below) upgraded the Neubert's competence structure so that it matches the skillset a professional translator needs. Her model does not contain only linguistic knowledge, it stretches over the borders of "*traditional "high-level" fields of translation education*".[37]

[35] KRÜGER, Ralph and Serrano Piqueras, Jesús. Situated Translation in the Translation Classroom. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2015, 2(1). ISSN 2342-7205. P. 14. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/chapter_1_situated_translation_in_the_translation_classroom_revised.pdf

[36] KRÜGER, Ralph and Serrano Piqueras, Jesús. Situated Translation in the Translation Classroom. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2015, 2(1). ISSN 2342-7205. P. 16. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/chapter_1_situated_translation_in_the_translation_classroom_revised.pdf

[37] ŠANCA, Filip. Technology: An Essential Part of Modern Translation Curricula. Interview with Dragoș Ciobanu. Memsource Blog, 2017. Available at: https://www.memsource.com/blog/2017/08/11/technology-an-essential-part-of-modern-translation-curricula/

Figure 5: Competences for professional translators, experts in multilingual and multimedia communication by EMT Expert Group (2009).[38]

The most interesting competence from the market point of view is the translation service provision competence that incorporates most of the skills that are usually not taught at universities[39] but the translation profession requires them. From these, a few examples can be picked: "*knowing how to negotiate with the client, knowing how to comply with professional ethics, knowing how to define stages and strategies for the translation of a document knowing how to self-evaluate, knowing how to follow market requirements and job profiles*."[40] Reading Schäffner's paper Translation Competence: Training for the Real World[41] for further understanding of the competences is suggested.

[38] EMT Expert Group. Competences for professional translators, experts in multilingual and multimedia communication. Brussels: 2009. Available at: https://ec.europa.eu/info/sites/info/files/emt_competences_translators_en.pdf

[39] See Appendix of this thesis.

[40] SCHÄFFNER, Christina. Translation Competence: Training for the Real World. In: HUBSCHER-DAVIDSON, Séverine, ed. and BORODO, Michał, ed. Global trends in translator and interpreter training: mediation and culture. First published. London: Bloomsbury, 2013. Bloomsbury advances in translation. ISBN 978-1-4411-9340-7. Pp. 32–33.

[41] SCHÄFFNER, Christina. Translation Competence: Training for the Real World. In: HUBSCHER-DAVIDSON, Séverine, ed. and BORODO, Michał, ed. Global trends in translator and interpreter training: mediation and

Translation equivalence is created by a fully-developed transfer competence with a proficiency in language and textual competence, while working in the field of subject competence in cultural competence framework.[42] The translation equivalence is no longer enough, though, so the tools and research competence and the psycho-motor competence are needed in order to be able to compete in the terms of speed and efficiency.

It is a matter-of-course that a translator is able to provide his clients with an adequate translation, but that alone does not make him a translator. A translator also should be an active part of the translation market, should seek business opportunities, and be able to turn them into profit.[43]

Pym even suggests that the translation market is on the brink of translators becoming more-or-less post-editors already, playing with the idea that the combination of Neural Machine Translation (NMT) and adaptive TMs will eventually rule the traditional translation out of the business completely. According to him, all of the above-mentioned competence models are deemed to be outdated since their very creation because they are reflecting a no longer existing translation reality.[44] That puts even more stress on students' ability to monitor the current developments of technology and different translation (or post-editing) techniques using this technology. This requires a huge shift from teacher-centred to student-centred education, which enables the students to work on their expertise and the way the work after graduation. The importance of this shift is going to be discussed later in this chapter.

In the same article, Pym mentions another transformation in translator's routine, and that is a shift from the *generative* process to the *selective* process. Since translators are now supplied

culture. First published. London: Bloomsbury, 2013. Bloomsbury advances in translation. ISBN 978-1-4411-9340-7. Pp. 30–44.

[42] NEUBERT, Albrecht. Competence in Language, in Languages, and in Translation. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. Pp. 10–12. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981

[43] ŠANCA, Filip. How to Start a Translation Career: A Guide for Students. Interview with Dragoș Ciobanu. Memsource Blog, 2017. Available at: https://www.memsource.com/blog/2017/08/11/technology-an-essential-part-of-modern-translation-curricula/

[44] PYM, Anthony. Translation Skill-Sets in a Machine-Translation Age [online]. In: Meta. Montreal: Les Presses de l'Université de Montréal, 2013, 58(3). Pp. 487–503. Available at: https://doi.org/10.7202/1025047ar

by different solutions on how to translate SL into TL, much more attention has to be paid to the correct selection of the options offered by the computer.[45]

1.2.2 Researches Evidence

Nevertheless, research show that the professional criteria are not taken into account in curricula and that technology and domain-specialization courses are often peripheral and non-obligatory. In a research conducted by Ulrych in 2005, 96% out of 41 European and North American universities claimed that they integrate professional criteria into their courses. However, only 28% respondents said that their students are always required to create a final version of their translation for a future reference, i.e. only quarter of the students has to deliver the final product. On top of that, only 47% of universities said that they use CAT tools, out of which only 52% (that is only 10 universities out of 41) use workbenches with their students.[46] [47]

Confirmation comes from Granell, who, in a series of researches between 2004 and 2006, found out that only 15% out of 391 responding translators had received ICT education through their university and 39% of them was not familiar with CAT tools at all, while only 1.9% used project management and workflow tools. Granell suggests that these results stem from the lack of awareness (that should be provided by universities) and scepticism.[48]

Similar results come from Samson who has examined "more than a dozen" Spanish undergraduate degrees in translation in 2005. He was looking for the amount of ECTS that is assigned to technology-related courses. He found out that the universities with "*the most obligatory credits in computer-related studies offer 10 credits. These credits are equivalent to a total of 100 hours, out of a minimum of 3000 hours of classroom instruction over the whole*

[45] PYM, Anthony. Translation Skill-Sets in a Machine-Translation Age [online]. In: Meta. Montreal: Les Presses de l'Université de Montréal, 2013, 58(3). Pp. 487–503. Available at: https://doi.org/10.7202/1025047ar

[46] Ulrych has a different understanding of CAT tools and also includes online glossaries and corpora among them. TMs and TBs are listed as not being part of workbenches.

[47] ULRYCH, Margherita. Training Translators: Programmes, curricula, practices. In: TENNENT, Martha, ed. Training for the new millennium: pedagogies for translation and interpreting [online]. Amsterdam: John Benjamins, 2005. Benjamins translation library, v. 60. EST subseries. ISBN 9789027294715. Pp. 5–17. Available at: http://site.ebrary.com/lib/natl/Doc?id=10075860

[48] GRANELL, Ximo. Multilingual information management: information, technology and translators. Amsterdam: Elsevieri–Chandos Publishing, 2015. Chandos Information Professional Series. ISBN 978-1-84334-771-2. Pp. 115–125.

degree course, less than 4%. Even a student opting for all the computer course options in the university offering the most credits of this kind would only reach just over 9% of their total studies in this speciality."[49]

In a study from 2015, Sarah Henter asked freelance translators working mainly in larger European countries whether they were happy with their studies. She received 155 responses and the following results: 50% of the respondents said that their education prepared them for their job, while only 37% said the university subjects were related to real-life practice. 46% of the freelancers could chose a domain specialization, while only 39% learnt how to use CAT tools. The most striking figure, however, is that only 14% were taught how to run a business.[50]

1.2.3 The Gap Between Academia and the Industry

As shown above, current curricula contribute to widening the gap between academia and industry thus creating able translation specialists who are not fully competent to apply their knowledge to practice,[51] despite the fact universities agree to have a responsibility to train specialists in translation.[52, 53]

It should not be forgotten that professional translators "*do not work in an intellectual ivory tower, they serve social needs*".[54] They receive specific requests in specific situations, and they

[49] SAMSON, Richard. Computer-Assisted Translation. In: TENNENT, Martha, ed. Training for the new millennium: pedagogies for translation and interpreting [online]. Amsterdam: John Benjamins, 2005. Benjamins translation library, v. 60. EST subseries. ISBN 9789027294715. Pp. 105–106. Available at: http://site.ebrary.com/lib/natl/Doc?id=10075860

[50] HENTER, Sarah. How Happy Are Translators with Their Studies? In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 28–41. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_henter.pdf

[51] LIU, Bin. A Proposed Curriculum Roadmap for "Marketable" Undergraduate Degrees in Translation: It All Begins with a Digital Sciences Information Session. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2015, 2(1). ISSN 2342-7205. Pp. 31–32. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/chapter_2_garantbiluinov24.pdf

[52] SCHÄFFNER, Christina and ADAB, Beverly. Developing Translation Competence: Introduction. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. Pp. XIV. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981

[53] CLARK, Robert. Computer-Assisted Translation: The State of the Art. In: Teaching translation and interpreting 2: insights, aims, visions: papers from the second Language International Conference, Elsinore, Denmark, 4–6 June 1993 [online]. Amsterdam: John Benjamins, 1994. Benjamins translation library; v. 5. ISBN 9789027285799. P. 307. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459001

[54] NEUBERT, Albrecht. Translation as Mediation. In: KÖLMEL, Rainer, ed. and PAYNE, Jerry, ed. Babel. The Cultural and Linguistic Barriers between Nations. Aberdeen: Aberdeen University Press, 1989. ISBN 9780080379692. P. 5.

must be able to deal with these. As translators, students are going to receive texts that contain programming tags, sophisticated graphics, errors, etc. The texts will have a specific target audience, quality-level defined by the client, and purpose.

Most of the times, students–translators are going to work under tight deadlines. They are going to receive tasks from translation agency's project manager who is pressured by client's expectations, or from a direct client who often has no linguistic knowledge. They are going to be expected to use CAT tools specified by the client or to use (sometimes incorrect) terminology in client's TB. Finally, translators' (in)ability to work in this environment will directly affect their financial situation. Hence the need to train students instead of simply educating them. [55]

It is not an aim of this thesis to disregard the translation theory and the vast academic knowledge that a translator must have. The aim is to demonstrate that theoretical knowledge alone is not sufficient.

1.2.4 Project-based Learning and the Situated Translation

For this reason, students should not only be taught about different tools, technologies, and project management and customer relationship strategies. They must be able to put those into practice and to be sure they can do so students should experience the "situated translation"[56] [57] themselves. Professional translators do not translate for the sake of translation or for the sake of learning a language, they translate to create a commissioned value in the target language.

As early as in 1995, Janet Fraser suggested that universities should cooperate on projects with non-governmental organizations (NGOs) to provide their students with practice.[58] While this

[55] ULRYCH, Margherita. Real-world Criteria in Translation Pedagogy. In: Teaching translation and interpreting 3: new horizons: papers from the Third Language International Conference, Elsinore, Denmark, 9–11 June 1995 [online]. Amsterdam: John Benjamins, 1996. Benjamins translation library; v. 16. ISBN 9789027285638. P. 252. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459003

[56] RISKU, Hanna. Translatorische Kompetenz. Kognitive Grundlagen des Übersetzens als Expertentätigkeit. Tübingen: Stauffenburg, 1998. ISBN 9783860572443.

[57] RISKU, Hanna. Translationsmanagement: Interkulturelle Fachkommunikation im Informationszeitalter (Translationswissenschaft). Tübingen: Natt, 2004. 1st ed. ISBN 978-3823363873.

[58] FRASER, Janet. Professional versus Students Behaviour. In: Teaching translation and interpreting 3: new horizons: papers from the Third Language International Conference, Elsinore, Denmark, 9–11 June 1995 [online]. Amsterdam: John Benjamins, 1996. Benjamins translation library; v. 16. ISBN 9789027285638. P. 245. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459003

is an important and useful hint that many universities (that are going to be discussed in the next chapter) put into practice, the most important part of that statement here are the "projects".

Project-based learning is a useful tool for developing translation competences in a collaborative and, what is also important, in a situated manner. Executing projects resembling the real-life situations is a way to narrow the competence gap that is present in some of the translation courses. While universities are usually effective in developing the language- and culture-related competences, i.e. the language, textual, cultural, and transfer competence, they often do not provide their graduates with the extra-curricular competences, i.e. the subject, psycho-motor, and tools and research competence, as shown in the researches above.

This situation with subject competence is understandable, since the translation programmes are usually based on the faculties of arts, philosophy, philology, etc.,[59] where subject specialists are not present. However, this gap can be easily overcome by inter-faculty cooperation (with a positive example of Babeș-Bolyai University from the research presented later in this thesis) or by inviting external specialists.

The project management and customer relationship skills with technology proficiency can be provided by external specialists too, or by university instructors that are at the same time professional translators. These experts then can lead their students through various types of situated projects thus preparing them for real situations.

1.2.5 Student-centric Training

As Henter wrote, "*our education is not finished when we finish school*"[60] and that is why more stress should be put to letting the students be in control of what they learn, how they learn it and when they learn it. This "asynchronous"[61] student-centred learning was propagated by

[59] Masters Programs in Translation Comparison. Available at: https://www.masterstudies.com/Masters-Degree/Translation/

[60] HENTER, Sarah. How Happy Are Translators with Their Studies? In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 58. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_henter.pdf

[61] VARELA SALINAS, María J. How New Technologies Improve Translation Pedagogy. In: Translation Journal [online]. 2007, 11(4). ISSN 1536-7207. Available at: http://translationjournal.net/journal/42technology.htm

Sainz as already as in the 90s[62, 63, 64] when the paradigm-changing translation technology has not penetrated translation courses yet. The dawn of translation technology teaching some years later gave even more ground to this approach.

The autonomous learning, where a lecturer transforms from a "*sage on the stage to a guide on a side*"[65] is a way to "*activate internally motivated involvement*"[66] in students. This "creative turn"[67] requires the students to learn beyond the scope of the class[68] which would not be achieved without the students being interested in learning themselves. This interest should be stimulated.

This means that students should be guided in their endeavour towards a goal set collectively by both the students and the lecturer. The curriculum should promote "*the self-organization*

[62] SAINZ, María Julia. Developing Translation Skills. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. Pp. 69–74. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

[63] SAINZ, María Julia. Student-centred Corrections of Translations. In: Teaching translation and interpreting 2: insights, aims, visions: papers from the second Language International Conference, Elsinore, Denmark, 4–6 June 1993 [online]. Amsterdam: John Benjamins, 1994. Benjamins translation library; v. 5. ISBN 9789027285799. Pp. 133–142. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459001

[64] SAINZ, María Julia. Awareness and Responsibility: Our Students as Partners. In: Teaching translation and interpreting 3: new horizons: papers from the Third Language International Conference, Elsinore, Denmark, 9–11 June 1995 [online]. Amsterdam: John Benjamins, 1996. Benjamins translation library; v. 16. ISBN 9789027285638. Pp. 137–144. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459003

[65] KING, Alison. From Sage on the Stage to Guide on the Side [online]. In: College Teaching. Abingdon: Taylor & Francis, Ltd., 1993, 41(1). Pp. 30–35. Available at https://faculty.washington.edu/kate1/ewExternalFiles/SageOnTheStage.pdf

[66] KAMENICKÁ, Renata and RAMBOUSEK, Jiří. Activating Student Autonomy in Translation Training: In-Class and Online. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. P. 93.

[67] PIOTROWSKA, Maria. Methodological Value of Self-Reflection in Translator Training. Student Empowerment. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. P. 106.

[68] SAINZ, María Julia. Awareness and Responsibility: Our Students as Partners. In: Teaching translation and interpreting 3: new horizons: papers from the Third Language International Conference, Elsinore, Denmark, 9–11 June 1995 [online]. Amsterdam: John Benjamins, 1996. Benjamins translation library; v. 16. ISBN 9789027285638. Pp. 137–144. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459003

of skills and knowledge from the simple to the complex and from teacher-centred instruction to highly autonomous learning."[69]

According to Pym, one of the leading experts on translator training, "learning to learn" is an essential part of translator's skillset in the era of computer hegemony: "*Whatever tool you learn to use this year will be different, or out-of-date, within two years or sooner. So[,] students should not learn just one tool step-by-step. They have to be left to their own devices, as much as possible, so they can experiment and become adept at picking up a new tool very quickly, relying on intuition, peer support, online help groups, online tutorials, instruction manuals, and occasionally a human instructor to hold their hand when they enter panic mode*."[70]

Pym identifies four sub-competences of the ability to learn:

1) "*Ability to reduce learning curves (i.e., learn fast) by locating and processing online resources;*
2) *Ability to evaluate the suitability of a tool in relation to technical needs and price;*
3) *Ability to work with peers on the solution of learning problems;*
4) *Ability to evaluate critically the work process with the tool*."[71]

All of these should be developed in a student-centred environment, where students bear the responsibility to learn themselves, since these abilities cannot be taught directly. They should be taught by letting students experience the learning process actively, which lets them see the need for life-long learning. Students must see the information they gather as a dynamic element that will not stay the same for the rest of their lives. Students should learn that even the information received from their lecturer is not "final" and should be subject to critical analysis. Nevertheless, this approach must not lead to a complete disrespect to a lecturer: He or she still stays a domain expert to be followed, although not blindly anymore.

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[69] KIRALY, Donald C. Beyond the Static Competence Impasse in Translator Education. In: THELEN, Marcel, ed., VAN EGDOM, Gys-Walt, ed., VERBEECK, Dirk, ed., BOGUCKI, Łukasz, ed., LEWANDOWSKA-TOMASZCZYK, Barbara, ed. Translation and Meaning. New Series, Vol. 1. Frankfurt am Main: Peter Lang Publishing, 2016. ISBN 9783653965667. P. 140.

[70] PYM, Anthony. Translation Skill-Sets in a Machine-Translation Age [online]. In: Meta. Montreal: Les Presses de l'Université de Montréal, 2013, 58(3). Pp. 487–503. Available at: https://doi.org/10.7202/1025047ar

[71] PYM, Anthony. Translation Skill-Sets in a Machine-Translation Age [online]. In: Meta. Montreal: Les Presses de l'Université de Montréal, 2013, 58(3). Pp. 487–503. Available at: https://doi.org/10.7202/1025047ar

The CAT tools help exactly this approach to be established within courses. With these tools, one can set up a real business resembling environment, in which students take up roles from a simulated translation workflow thus moving the learning emphasis on them. Cloud-tools then allow the students to work on their assignments from any computer with Internet connection, which means that they can chose a time to complete their assignments. This gives them the responsibility to meet the deadlines in order to allow their colleagues, other students, to work on their assignments—for example proofreading of their translations.

For further study on student-centred learning, "authentic experience learning", and client-orientation in education, studying Kiraly's book A Social Constructivist Approach to Translator Education[72] is recommended.

1.2.6 Summary

In conclusion, this thesis suggests a student-centred learning via situated projects, led by both instructors from outside the academic environment and academicians. The instructor can be a university employee but he or she should be able to look over the horizons of the environment and have his or her own, up-to-date experience from the real translation market. It should be noted that this thesis does not want to disregard professors of the more traditional courses. These are equally important, and one cannot function without the other. As a manager of one of the technologically advanced translation programmes said: "*It's going to be good for them [students] if they're motivated to think about more abstract things as well. Once they get out into the field of work, I am not sure how many opportunities they'll have to sit back and really think hard*."[73]

A student of translation must not despise the translation theory and must not forget about the importance of language knowledge. The idea is to add yet more skills to the curriculum that is already well-developed when talking about theoretical preparation. The goal of this thesis is to show a way how to develop the under-trained translation competence. Students

[72] KIRALY, Donald C. A social constructivist approach to translator education: empowerment from theory to practice. Manchester: St. Jerome Publishing, 2000. ISBN 1900650339.
[73] ŠANCA, Filip. Technology: An Essential Part of Modern Translation Curricula. Interview with Dragoș Ciobanu. Memsource Blog, 2017. Available at: https://www.memsource.com/blog/2017/08/11/technology-an-essential-part-of-modern-translation-curricula/

must not only know the procedural mechanics of translation, they need to know the theory, too,[74] and this thesis fully accepts that.

It is also important to note that, as, among others, Samson suggests: "*It is vital that the relevant skills be taught throughout the curriculum in appropriate subjects. Training in general computer skills must come to occupy a central place within overall training, no longer marginalized to peripheral specialized subjects.*

Furthermore, the planning and distribution of computer skills instruction across a range of translation subjects provides translation department teaching staff with a new opportunity for creating coherence across the courses that students take. The benefits of this are not to be underestimated since in emergent multi-disciplinary studies such as translation it is all too easy for individual subjects to be taught in 'splendid isolation' and for the sum of the parts, from the student's point of view, to remain fragmentary and kaleidoscopic."

That means that the course suggested by this thesis is not in itself sufficient if one wants to train translation professionals. It is a core course for two of the competences, but at the same way it utilizes the other competences developed in other core courses, these two competences also need to be utilized in other courses. Students must understand that these are significant skills that are interconnected with all the other skills they learn during their studies.

1.3 Current Status of CAT Training

Historically, translation had been used as a way of second-language (L2) teaching,[75] which inevitably shaped the form of the translation tasks and the attitude towards translation itself. This approach is no longer a case, but its reverberations can still be felt: for example, the idea of editing source texts to fit the educational needs is based on it, as well as the way of

[74] ULRYCH, Margherita. Real-world Criteria in Translation Pedagogy. In: Teaching translation and interpreting 3: new horizons: papers from the Third Language International Conference, Elsinore, Denmark, 9–11 June 1995 [online]. Amsterdam: John Benjamins, 1996. Benjamins translation library; v. 16. ISBN 9789027285638. P. 255. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459003

[75] SNELL-HORNBY, Mary. The Professional Translator of Tomorrow: Language Specialist or All-round Expert? In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. P. 9. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

assessment of language errors without considering the (simulated) purpose of the translation. Where this old approach can still be found, however, are departments of small languages that are not fully translation-oriented, but which still need to train translators in some way.[76] This issue will be discussed in the practical part of this thesis.

1.3.1 International Quality Standards

Translation teaching now faces other problems than the repercussions of such utilization of translation. Some of these were already mentioned in the previous chapter, including the introduction of CAT tools and other translation technology into courses, which experienced a great turn with the Bologna Process beginning in 1999 and launching its direct product, the European Higher Education Area (EHEA) in 2010.[77] Even prior to these events, technology had its place in a few courses around the world, but the implementation was dependent on an active and timeless approach of individual lecturers.[78] [79] [80] On top of that, the use was not organized.

Apart from unifying the very diverse high education system throughout Europe, EHEA has also created a clear, unified definition of employability because the creators felt the need of adapting university training to market needs.[81] According to them, employability is "*the ability to gain initial employment, to maintain employment, and to be able to move around within*

[76] See Appendix of this thesis or the practical part.
[77] European Higher Education Area and Bologna Process. Available at: https://www.britishcouncil.org/education/ihe/what-we-do/policy-strategy/bologna-process-and-european-higher-education-area
[78] WINKLER, Gustav. Teaching Technical Translation: An Engineered Approach at Flensburg Polytechnic. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. Pp. 99–106. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491
[79] SCHERF, Willi G. Training, Talent, and Technology. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. Pp. 153–160. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491
[80] DECESARIS, Janet A. Computerized Translation Managers as Teaching Aids. In: Teaching translation and interpreting 3: new horizons: papers from the Third Language International Conference, Elsinore, Denmark, 9–11 June 1995 [online]. Amsterdam: John Benjamins, 1996. Benjamins translation library; v. 16. ISBN 9789027285638. Pp. 263–270. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459003
[81] PLAZA LARA, Cristina. Instrumental Competence in Translation and Interpreting Curricula in Spain: Pre-EHEA vs. EHEA Bachelor's Degrees. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 258. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_cristina_plaza_lara.pdf

the labour market" and it should be achieved by "*improving cooperation between employers, students and higher education institutions*."[82]

EHEA led to professionalisation[83] of curricula, making them more employability- and practice-oriented and, for this thesis most importantly, also led to incorporation of CAT tools and other translation technology into courses at a much larger scale than before.[84] Moreover, these curricula were created in a standardized manner, thanks to the creation of various quality standards. According to those, translation programmes could be compared with each other and their success rate could be defined.

Two quality standards should be highlighted: the European Union's standard from 2006, EN 15038,[85] which was in 2015 superseded by the international standard ISO 17100.[86] The latter set up the latest competence framework:

1. translating/interpreting competence;
2. linguistic and textual competence;
3. searching strategies and research competence;
4. cultural competence;
5. technical competence;
6. entrepreneurial competence;
7. inter-personal competence;

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[82] Making the Most of Our Potential: Consolidating the European Higher Education Area. Bucharest Communiqué, Final Version. Bucharest: 2012, p. 1. Available at: http://www.enqa.eu/wp-content/uploads/2013/03/Bucharest-Communique-20121.pdf

[83] In THELEN, Marcel. Professionalisation in the translator training curriculum. In: BOGUCKI, Łukasz, ed., LEWANDOWSKA-TOMASZCZYK, Barbara, ed., THELEN, Marcel, ed. Translation and Meaning. New Series, Vol. 2, pt. 2. Peter Lang Publishing: Frankfurt am Main, 2016. ISBN 9783631693698. P. 123., the author defines professionalisation as: "*[the process to] give a student the qualities, competences and skills worthy of and appropriate to a person engaged in the paid occupation of translation by means of a prolonged training and a formal qualification, so as to gain initial employment in translation, to maintain employment, and to be able to move around within the translation labour market*".

[84] THELEN, Marcel. The Practice-Oriented Translator Training Curriculum: An Example. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 163. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_thelen_m.pdf

[85] More on the impact of the EN 15038 quality standard can be found in GREERE, Anca. The Standard EN 15038: Is there a Washback Effect on Translation Education? In: HUBSCHER-DAVIDSON, Séverine, ed. and BORODO, Michał, ed. Global trends in translator and interpreter training: mediation and culture. First published. London: Bloomsbury, 2013. Bloomsbury advances in translation. ISBN 978-1-4411-9340-7. Pp. 45–68.

[86] ISO 17100:2015. Translation services – Requirements for translation services. Available at: https://www.iso.org/standard/59149.html

8. problem solving competence.[87]

This set of competences resembles the competence frameworks discussed in the previous chapter, while splitting and re-structuring some of the competences and adding the entrepreneurial and inter-personal competence that had not been taken into account until then.[88]

In her research of Spanish translation BA programmes, Plaza Lara found out that the establishment of EHEA led to a considerable increase of courses related to the computer science, not only incorporating CAT tools, but also various project management platforms. Furthermore, these courses were no longer only of introductory nature, they became a chance for students to put their skills into practice. [89]

Another important quality label, launched in 2006 and established in 2009, is the European Master's in Translation that partners the Directorate General of Translation of the EU and some of the translation MA programmes throughout Europe.

The main goal "*is fully in line with the EU priorities for higher education: improve the quality of translator training in order to enhance the labour market integration of young language professionals. The EMT translator competence profile, drawn up by European experts, is at the core of the project. It defines the basic competences that translators need to work successfully in today's market. More and more universities, also beyond the EU, use it as a model for designing their programmes. By training highly skilled translators in close cooperation with the language industry the EMT seeks, in the long run, to enhance the status of the entire translation profession in the EU*."[90]

[87] THELEN, Marcel. The Practice-Oriented Translator Training Curriculum: An Example. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 171. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_thelen_m.pdf
[88] See the section on competences above.
[89] PLAZA LARA, Cristina. Instrumental Competence in Translation and Interpreting Curricula in Spain: Pre-EHEA vs. EHEA Bachelor's Degrees. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 264–274. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_cristina_plaza_lara.pdf
[90] European Master's in Translation (EMT) explained. Available at: https://ec.europa.eu/info/education/european-masters-translation-emt/european-masters-translation-emt-explained_en

One of the EMT's project is connecting translation technology providers with their partner universities to establish a close connection between the industry and the academia. Such an approach helps to create more structure and standardisation in the already existing industry–academia partnerships, enabling interinstitutional and international collaboration between the universities themselves as well. This further helps to enhance the individual translation programmes by information interchange.

In her reflection on these changes, Piotrowska asks whether it is even possible to execute this macro-EU approach properly. She argues that the "native peculiarities" might be more important than a general framework.[91] This thesis claims that balance should be found. National specifics should be considered when applying the general framework on a national level, however, this does not mean that the framework should be swept aside completely. The frameworks do not bind universities to follow the proposed structures blindly, rather, they provide an opportunity to take advantage of the experience of universities in other countries and modify their approach to fit the specific needs of a given country.

1.3.2 The Beginnings of CAT Integration

Even in the 90s, many years before any of these programmes, quality standards and macro-EU approaches were introduced, some lecturers around the world have discovered the growing demand for technically-skilled translators and have tried to apply it in their courses. They knew their students are not going to work in the environment the lecturers do, they will have to compete with the new challenges of a new century. That is, they cannot be trained in the ways the lecturers themselves were trained. Ideally, they should be trained the way they will have to work in ten or fifteen years of time. The question was whether it is even possible.

The following examples of programmes show that it indeed is. The key to success is not to just train students to use the tools available at the moment of studying, but to train them in being curious and pro-active enough to discover new technologies and new ways of thinking and

[91] PIOTROWSKA, Maria. Methodological Value of Self-Reflection in Translator Training. Student Empowerment. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. Pp. 105–116.

working on-the-go. With the accelerating speed of technology advancement (according to Kurzweil's Law of Accelerating Returns),[92] no one can predict what will happen in ten years, nor does one know what will happen in five. What is apparent, however, is that *something* is going to happen and that students can be trained to be open to the change.

It should be noted that this is not meant to be a definite list of such translation programmes, these are just two examples that market orientation and CAT usage in translation teaching is not only a post-Bologna reality.

University of Leipzig, 1991[93]

In 1991, Scherf from the University of Leipzig, Germany, wrote: *"[...] in translator training in particular, a computer assisted work environment can, if properly designed and implemented, provide exactly that guidance and support [to prepare students to work in a way their future employers will expect them to work] and help accumulate translation experience that would otherwise have to grow over a much longer period of time*."[94] In other words, the author not only recognized the market's call for technical expertise of students, he discovered that using the CAT tools can, if used properly, actually help lecturers to train their students more efficiently overall.

In his article, Scherf describes how he introduced a basic CAT tool—a translation-focused word processor with an integrated dictionary that the author calls a "*multi-window processing package*"—in his courses which resulted in significant changes in curriculum.

[92] KURZWEIL, Raymond. The Law of Accelerating Returns, 2001. Available at: http://www.kurzweilai.net/the-law-of-accelerating-returns

[93] SCHERF, Willi G. Training, Talent, and Technology. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. Pp. 153–160. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

[94] SCHERF, Willi G. Training, Talent, and Technology. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. P. 153. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

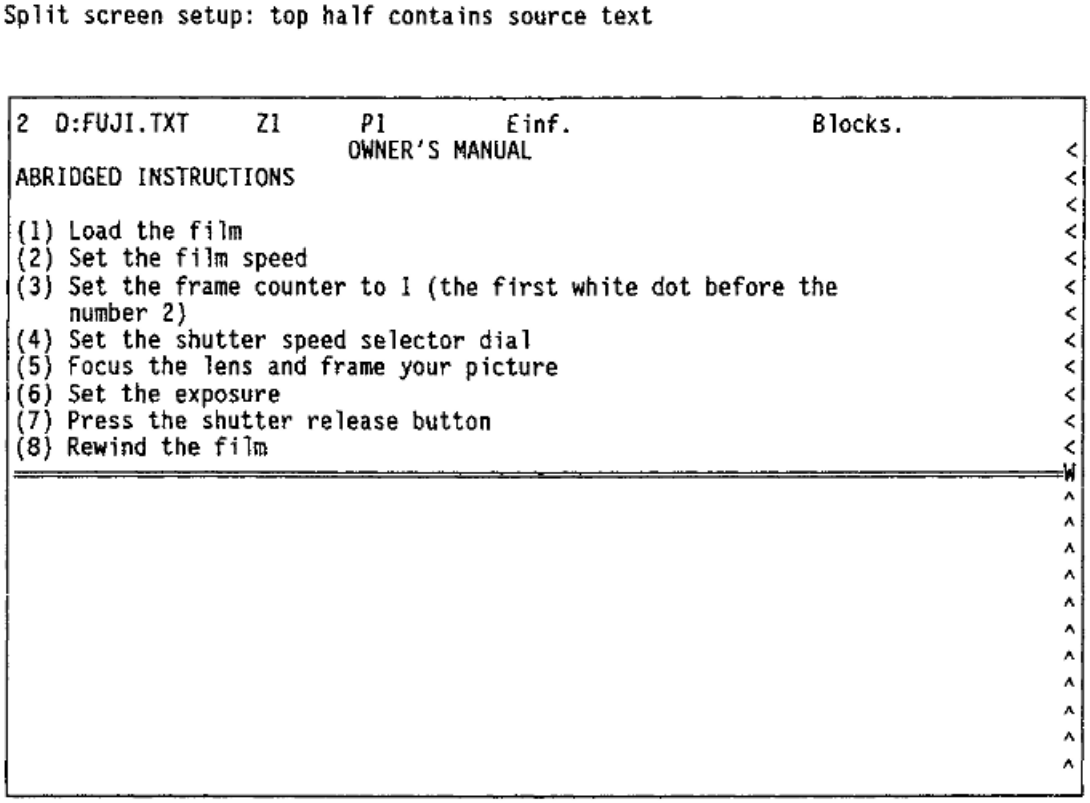

Figure 6: A window of Scherf's editor, where source text can be seen in the upper half of the screen, while the bottom half is designed for the target text. In the bottom half, dictionary suggestions can be shown as well.[95]

Scherf observed that the implementation of the tool led to individualisation of his teaching, giving his students the ability to work when they want—thus enabling a form of asynchronous learning described earlier. It is certainly true that students could (and did) work on their translation assignments from home even before the introduction of CAT tools, but author's approach brought an important new aspect of such work. Scherf could monitor what students did and when, thanks to which he got an invaluable insight into the mental processes of his

[95] SCHERF, Willi G. Training, Talent, and Technology. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. P. 157. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

students while translating. This insight is not far from the idea of Think-Aloud Protocols (TAP), a way of gathering data that was, in the translation teaching framework, used by Fraser.[96]

Not only did CAT tools change the curriculum, Scherf also observed a shift in the role of teacher, which again is a transition that has been described in the previous chapter and which experienced its outset some years later. The author could monitor students approach to translation and eventually work on its enhancement instead of leading them through the task himself.

Flensburg University of Applied Sciences, 1991[97, 98]

In Flensburg, a polytechnic university, which mainly trained engineers, they discovered a German market need for translators with profound knowledge of the highly specialist engineering field and decided to satisfy the need. This approach, opposite to ordinary translation programmes, resulted in a very specific approach to the curriculum.

It is common that translation programmes are set up at faculties of arts, modern languages, linguistics, etc.,[99] which also shapes the form of curriculum and, which is important, determines who the lecturers will be. In Flensburg, on the other hand, the programme developed from a technical background and as a result of market need. Therefore, the curriculum was created with different intentions and by people with different knowledge and experience. The lecturers were not philologists, nor linguists, they were engineers.

Although neither of the authors mentions the use of CAT tools in his courses,[100] his and his colleagues' curriculum is interesting from another perspective. It focuses on another

[96] FRASER, Janet. The Broader View: How Freelance Translators Define Translation Competence. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. Pp. 51–62. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981

[97] WINKLER, Gustav. Teaching Technical Translation: An Engineered Approach at Flensburg Polytechnic. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. Pp. 99–106. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

[98] BAUMGARTNER, Peter. Technical Translation: Putting the Right Terms in the Right Context. In: Teaching translation and interpreting 2: insights, aims, visions: papers from the second Language International Conference, Elsinore, Denmark, 4–6 June 1993 [online]. Amsterdam: John Benjamins, 1994. Benjamins translation library; v. 5. ISBN 9789027285799. Pp. 295–300. Available at: http://site.ebrary.com/lib/natl/Doc?id=10459001

[99] European Commission press release. 60 universities receive 'European Master's in Translation' Label. Brussels, 2014. http://europa.eu/rapid/press-release_IP-14-625_en.htm

[100] Winkler mentions the use of MT.

competence gap described in the previous chapter, that is the lack of domain-specialization. Unlike translation students from language-related faculties, students from Flensburg were. From the very beginning of their studies, working surrounded by engineers and their engineering jargon. This inevitably shaped how they approached the technical translation—for them, the source text dealt with a topic they had to think about on daily basis.

Students of the Flensburg University first learnt the engineering theory, then they learnt how to translate the engineering theory and finally they learnt the different approaches to translation in general, while studying their two languages throughout the whole studies. This approach first shows students *what* to translate, and then *how* to translate it, which stands in contrast with the common approach, where students first learn the theory of translation.

Although the language and translation part are taught by professional translators and linguists, there are downsides of this approach. However, it is an important example of how to do things differently. What translation departments grown on language-centred faculties can draw from this, is that language and translation theory knowledge alone is not what makes a good translator. Apparently, translators can be trained in a fully technical environment and still be employable—after all, the whole programme was created because of the lack of such translators. Domain specialization is an essential part of translation professionals and it should not be neglected.

1.3.3 Examples of Modern Translation Curricula

Now, after the Bologna Process, the establishment of EHEA, and the creation of EMT, translation programmes all round Europe have headed in the direction shown by the previous examples in much larger numbers and in a much more synchronized manner. The EMT alone has 64 members[101] while being a quality label only given to the most advanced master's programmes. The orientation on employability and the introduction of various translation technology is no longer a matter of several individual programmes. It is a joint effort of tens (if not hundreds) of universities to create a new academic environment that would create a balance between the traditional and more unconventional subjects and methods, enhancing the curricula with the opportunities offered by translation technologies. In the following set

[101] Universities and programmes in the EMT network. Available at: https://ec.europa.eu/info/resources-partners/european-masters-translation-emt/universities-and-programmes-emt-network_en

of examples (that is, again, not meant to be a representative sample of current translation programmes, but rather a way of showing how the theory mentioned earlier can be applied in practice.)

Cologne University of Applied Sciences, 2015[102]

Earlier in the thesis, the "in vivo" course created by Krüger and Serrano Piqueras at the Cologne University of Applied Sciences that focuses on projecting the professional environment into courses was mentioned. As opposed to the in vitro approach, which creates an artificial environment within universities, the in vivo course creates a course that *resembles* the real-life practice, attempting to make it as close to the real translation process as possible.

To achieve this, the authors based their course on the theory of situated translation,[103] the skopos theory,[104] the competence model by Göpferich,[105] and the German version of international quality standard EN ISO 17100:2013, two years later superseded by a 2015 variant.[106] Albeit using an outdated competence model that neglects the use of technology, they have managed to structure a course that is heavily technology-dependent. After all, the course is called "Translation Project Using Translation Tools".

This project-based course that has only two hours a week and lasts for one semester, has a goal to familiarize students with the full translation workflow, including all the necessary project management and tools. At the beginning, a theoretical introduction on how to complete a project is given to students, based on the aforementioned international quality standard. After the briefing, students work on a first project, where "*they […] establish transparent folder structures for the various project files provided by the client, create*

[102] KRÜGER, Ralph and Serrano Piqueras, Jesús. Situated Translation in the Translation Classroom. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2015, 2(1). ISSN 2342-7205. Pp. 5–30. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/chapter_1_situated_translation_in_the_translation_classroom_revised.pdf

[103] RISKU, Hanna. Translatorische Kompetenz. Kognitive Grundlagen des Übersetzens als Expertentätigkeit. Tübingen: Stauffenburg, 1998. ISBN 9783860572443.

[104] REIß, Katharina and VERMEER, Hans J. Grundlegung einer allgemeinen Translationstheorie. Tübingen: Niemeyer, 1984. Linguistiche Arbeiten, vol 147. ISBN 9783111351919.

[105] GÖPFERICH, Susanne and JÄÄSKELÄINEN, Riitta. Process research into the development of translation competence: Where are we, where do we need to go? In: Across Languages and Cultures. Budapest: Akadémiai Kiadó, 2009, 10(2). ISSN 1588-2519. Pp. 169-191.

[106] ISO 17100:2015. Translation services – Requirements for translation services. Available at: https://www.iso.org/standard/59149.html

translation memories and terminology databases, review the client's translation instructions, style guide, and other documents and prepare the files for translation."[107]

The authors do not only train their students to use CAT tools, they also see the importance of exploring different e-mail applications, FTPs, document managers, invoicing programs, or search engines to be able to minimalize the amount of side-work that the student has to do *on top of* translating. Not only are the students taught to evaluate and question their current tools, they are also prompted to test different online search strategies or project management methods to automate most of the side activities. The goal is to let students focus on what is important, i.e. translating, without having to bother with the bureaucracy and supplementary work. A professional translator should be so proficient in all these activities as to be able to *not think* about them when doing them.[108]

An important fact is that this course is not the only course in the curriculum that deals with translation technology. The idea behind the in vivo course is to put together all of the modular skills and knowledge to create a realistic combination of tasks. For that reason, the course draws from the development of competences from other courses to create a holistic approach. It is imperative that such a course is supplemented by courses that deal more specifically with translation technologies, translation techniques, project management, language skills, etc.

Maastricht School of Translation and Interpreting, 2016[109]

In the Netherlands, the Maastricht School of Translation and Interpreting was created in 1981 as a constituent part of the Zuyd University of Applied Sciences. Currently, it offers one of the advanced translation curriculums, created on the basis of competences defined by EMT and

[107] KRÜGER, Ralph and Serrano Piqueras, Jesús. Situated Translation in the Translation Classroom. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2015, 2(1). ISSN 2342-7205. P. 13. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/chapter_1_situated_translation_in_the_translation_classroom_revised.pdf

[108] ADAB, Beverly. Evaluating Translation Competence. In: SCHÄFFNER, Christina, ed. and ADAB, Beverly, ed. Developing translation competence [online]. Amsterdam: John Benjamins, 2000. Benjamins translation library, v. 38. P. 219. Available at: http://site.ebrary.com/lib/natl/Doc?id=10458981

[109] THELEN, Marcel. The Practice-Oriented Translator Training Curriculum: An Example. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 163–200. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_thelen_m.pdf

the quality standards EN 15038 and ISO 17100 described in the previous chapter. Before the curriculum was created, the authors have done a survey of universities, language service providers (LSPs): "*The training institutes were surveyed on mission, objectives, and curriculum, and the profession and customers on needs and expectations*."[110]

This way, the institute was able to create a practice-oriented curriculum on a competence-oriented didactic concept with a mission to create employable professionals. The core idea of the programme is that as students advance through their studies, they are becoming more and more independent. *Control* from the side of trainers is gradually changing to *guidance*: from a Sage to a Guide. General education is progressively supplemented by thorough specialization.

Professionalization, which Thelen describes in a different work of his as a process to "*give a student the qualities, competences and skills worthy of and appropriate to a person engaged in the paid occupation of translation by means of a prolonged training and a formal qualification, so as to gain initial employment in translation, to maintain employment, and to be able to move around within the translation labour market*",[111] gets a specific shape in the Maastricht curriculum:

1. "*There is a detailed programme of guest lectures/ seminars by external professionals throughout the curriculum.*
2. *External professionals participate in curriculum development, actual teaching and training, testing and assessing.*
3. *The materials/texts used are authentic, actual and up-to-date and are provided by external professionals, staff trainer-translators, and sister translation institutes.*
4. *There are various placements for students:*
    a. *short company visits;*
    b. *placements abroad;*
    c. *placements in professional translation bureau;*

[110] THELEN, Marcel. The Practice-Oriented Translator Training Curriculum: An Example. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 169. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_thelen_m.pdf

[111] THELEN, Marcel. Professionalisation in the translator training curriculum. In: BOGUCKI, Łukasz, ed., LEWANDOWSKA-TOMASZCZYK, Barbara, ed., THELEN, Marcel, ed. Translation and Meaning. New Series, Vol. 2, pt. 2. Peter Lang Publishing: Frankfurt am Main, 2016. ISBN 9783631693698. P. 123.

    d. *placements in in-house simulated translation bureau.*

5. *There are also various placements for trainers:*
    a. *in translation bureaus;*
    b. *staff exchanges.*
6. *Students and staff are encouraged and facilitated to participate in conferences.*
7. *The Maastricht School has an in-house simulated translation bureau which is run and managed by students under the supervision of a trainer-director.*
8. *The University of Applied Sciences to which the Maastricht School belongs has a quality register for new and "sitting" trainers.*
9. *Students learn in "learning communities" consisting of trainers, students and external professionals.*
10. *Professional attitude of students counts towards and may even overrule their final study results."*[112]

The programme managed to combine all the necessary competences in a well-balanced manner, where all taught theory is related to practice. Students can choose their domain-specialization between economics, law, and IT, while these courses are led by on-site domain experts. The emphasis on external placements is also very high, with placements related to both the language knowledge and professional training. A significant feature of the programme is also its orientation on non-translation-specific business issues as students are trained to write CVs and conduct interviews.

All the practice is put together in the simulated translation bureau[113] that is run and managed by students themselves. Students must actually apply for the positions in the bureau and they are responsible for its earnings, PR, customer satisfaction, etc. "Placement hosts" from external companies are present in the final year examination so that they can easily pre-select their future applicants for a real job. The idea of simulated translation bureaus is a significant

[112] THELEN, Marcel. The Practice-Oriented Translator Training Curriculum: An Example. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 173–174. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_thelen_m.pdf

[113] Professors from the Maastricht institute have created a whole network of such simulated bureaus, the International Network of Simulated Translation Bureaus: http://www.instb.eu/

step forward in the professionalization of translation curricula and researching the subject further is recommended.[114]

Hamad bin Khalifa University, 2016[115]

Another approach to create an integrated curriculum that "*breaks down disciplinary divisions*"[116] and builds the curriculum around themes relevant to real-world issues, is the one taken at the Hamad bin Khalifa University in Qatar. The situation in MENA (Middle East and North Africa) region is different from the situation in Europe and the university itself was established in 2010 as a result of a regional trend to create educational power from local resources. This lead to a different attitude towards the curriculum but created an interesting region-bound scenario that can be taken as an example for greater local binding of curricula.

In the programme authors describe, a distinctive project that connects all the until then obtained education. Students have to process the oral history of their family, from the data mining and source validation to final presentation of the project. Both translation theory and practice are repeatedly put into work throughout the project as students have to translate all of the data between their native local language, English, and MSA, which stands for Modern Standard Arabic, the official language of the Arab League and at the same time the only form of Arabic taught in schools.[117] The project's structure is following:

1. "*Formulating questions;*
2. *Translating questions into the language of the interview;*
3. *Interviewing subjects;*
4. *Writing follow-up notes;*
5. *Transcribing an excerpt of interview;*

[114] THELEN, Marcel. Going European: A Plea for Building a Network of Simulated Translation Bureaus. In: FORSTNER, Martin, ed., and LEE-JAHNKE, Hannelore, ed. CIUTI-Forum Paris 2005. Regards sur les aspects culturels de la communication. Frankfurt am Main: Peter Lang, 2005. ISBN 9783039108343. Pp. 219–-236.
[115] CIFUENTES GOODBODY, Nicholas and HARDING, Sue-Ann. An Integrated Approach to the Translation Studies Curriculum. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 1–23. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_cifuentes-goodbody_2c_n.___harding.pdf
[116] CIFUENTES GOODBODY, Nicholas and HARDING, Sue-Ann. An Integrated Approach to the Translation Studies Curriculum. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 5. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_cifuentes-goodbody_2c_n.___harding.pdf
[117] Modern Standard Arabic. Available at: http://www.msarabic.com/index.php/en/

6. *Translating the excerpt into MSA;*
7. *Translating the excerpt into English; and*
8. *Writing a commentary on the Arabic-English translation*."[118]

Furthermore, the project serves market needs as well as in the Arabian Gulf, as preserving the local culture is currently a hot topic and "*in Qatar, several different initiatives are underway to collect and preserve oral histories, but they have been somewhat hampered by a lack of trained and skilled translators who are able to transcribe, translate, and advise on the curation of this material. Thus, one reason for incorporating such a project into our integrated curriculum was to provide initial training to students who might later contribute to these initiatives*."[119]

The selection of such a topic is also based on the theory that personal involvement increases the engagement and activity of students, which was, after authors' subsequent analysis, proven right. The student-led approach resulted in a much broader material than the lecturers expected, and students delved into topics that the authors could not have suggested themselves. It would be hard, if not impossible, to employ such an approach in different circumstances but it can be taken as an example of how a lecturer can raise students' engagement using local and at the same time market-oriented means.

University of Montenegro, 2016[120]

The University of Montenegro is the only university from the Balkans that figures in the theoretical part of this thesis. This is because it is the only university that described its programme in periodicals dealing with the researched topic and at the same time offers a programme that is structured in compliance with the trends described in the previous chapter.

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[118] CIFUENTES GOODBODY, Nicholas and HARDING, Sue-Ann. An Integrated Approach to the Translation Studies Curriculum. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 12. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_cifuentes-goodbody_2c_n.___harding.pdf

[119] CIFUENTES GOODBODY, Nicholas and HARDING, Sue-Ann. An Integrated Approach to the Translation Studies Curriculum. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. P. 10. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_cifuentes-goodbody_2c_n.___harding.pdf

[120] LAKIĆ, Igor and PRALAS, Jelena. Translation Training for the EU: The Case of Montenegro. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 87–118. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_laki%C4%87_2c_i.___pralas_2c_j..pdf

Other universities from the researched region either do not figure in such publications or offer a curriculum following different standards. This is also one of the reasons for conducting the research presented in the practical part.

Montenegro split from the Federal Republic of Yugoslavia in 2006 and immediately headed to join the EU. The EU accession talks were also the main driving force behind the creation of the translation programmes created at the University of Montenegro. The curricula were created on the basis of market need for translators enabling the accession by translating the vast amounts of bureaucracy.

At the beginning, training students in translation theory and languages was enough because there was virtually no competition. Later on, however, Lakić observed that the situation is changing and that in the last few years, with growing competition, the students also should be able to sell their work properly and to enhance their translation techniques by introducing translation tools, which is one of the biggest gaps that remains in author's programme. For this reason, the programme is trying to apply the EMT standards and to apply for its membership in 2019.

On the other hand, even before this realisation, the curriculum consisted of domain-specific field studies—law in the first year and economics in the second, which are the two most important fields for the EU accession. Statistics speak in favour of such a demand-oriented approach. In a research among 178 graduates (out of whom 71 have replied) who finished their studies between 2005 and 2014, only 2 of them are unemployed and only 10 do not work in the field of translation at all.

Creating a programme based on a temporary phenomenon such as EU accession is not a long-term solution. The dynamics of adapting such an approach as shown by Lakić can, however, create a sustainable curriculum that actively reflects the current needs of the market.

1.4 Summary

In the theoretical part of this thesis, several goals were pursued. At the beginning, terminology for this thesis was defined and the term CAT tools was specified, which was needed because the use varies greatly among different authors and, mainly, in the span of time. The

components of CAT tools were also delimited. A brief sketch how translation technologies developed was drawn, too.

Then, in the second section, several competence models that are used to create translation curricula in compliance with the skillset of a professional translator were discussed and defined. The gap between academia and the industry was explained and discussed and several researches were mentioned and summarized to support the theses. A set of preliminary best practices to be further developed in the practical part of this thesis was established, envisaging a project-based market-oriented and student-centred learning based on situated translation and the current market trends.

In the last chapter of the theoretical part, the current situation of translation training was depicted, and several quality standards, organizations and key events were mentioned. In the end, five translation programmes were selected to show how the preceding theory was put into practice at some universities, emphasizing distinctive features of these programmes. Two of the examples were programmes from the past when the incorporation of translation technology was not common, yet the authors of these programmes discovered the need for being open to technology advancement as to prepare their students for the situation in the 21st century.

This theoretical basis was necessary to ground the following, practical part, in which the research of translation curricula selected on the basis of technology employment and their geographic position will be described. Although this thesis focuses on the Balkans, discussing examples from out of this area was important as to gather experience applicable for the researched region.

2 Practice

The theoretical part created a base for the key section of this thesis, the practical part. The goal here is to envisage, structure, and finally create a "Introduction to CAT Tools and Project Management for Linguists" for small language departments as defined in the introduction.

It was decided to create such a course based on the fact that small languages, or small language combinations to be more precise with regards to translation, are usually taught at departments whose aim is not to train translators, but philologists, cultural experts, historians, etc. Programmes of these departments are often aimed at studying a given language, its nation, culture, history, or religion, which does not put enough emphasis on translation.

This thesis does not claim that these departments should focus on translator training only as not everyone who joins these departments as a student wants to become a translator. The issue is that if the student wants to become a translator, he or she has no other choice than to join such a, from his or her point of view, more generalist programme because there are no programmes offering a, to give an example, Polish to Bulgarian Translation course.

The point is that these departments *have to* be able to train translators. The translation market is indeed governed by combinations with or among big languages, such as English, Chinese, or Spanish,[121] [122] but it is not limited to them. Translation and localization between small languages is equally important and the educational system has to be able to create enough able translators to feed the market need. The workforce has to be created somehow.

A further unspecified student who wants to become a translator from Bulgarian to Polish can be taken as an example. The only programme relevant to his aim is a programme that deals with Bulgarian philology. He goes for this programme and, after five years, he graduates. He is proficient in both his mother tongue and the foreign language, he knows a lot about the relations of these countries and their history. He might be armed for a successful career in Slavistics.

[121] PIMENTEL, Inês. The Top 10 Languages in Higher Demand for Business. Amplexor, 2017. Available at: http://blog.amplexor.com/globalcontent/en/the-top-10-languages-in-higher-demand-for-business

[122] Internet Language Markets around the World. Translation Solutions Ltd. Available at: http://www.your-translations.com/languageMarkets.php

What he lacks then is the experience with how the translation market works, what the translation project management processes are, what is the workflow, what tools are used, what technological involvement is expected, how to find customers and how to communicate with them, what legal aspects are related his work, how to store data safely, how to systematically structure his working files, etc.

If a look back is taken at the EMT competence scheme described in the theoretical part, the student is proficient in the language competence and the intercultural competence. If he opted for domain-specific seminars or made some extracurricular effort, he won't struggle with the thematic competence. The information mining competence should also be developed by having to gather data for his theses and other elaborative writing assignments. He should be able to, on one hand, get access to vast amounts of information and, on the other, to critically judge them to select those relevant and unbiased. This competence could be further developed with closer connection to translation but that can be trained in the following years.

Still, two competences are missing: the technological competence and the translation service provision competence. In short, that means the student is not able to use and evaluate technology properly and he is not able to navigate in the translation processes and the market. The fundamental thesis of this work is that the student should be given a chance to work on these competences. It is not necessary to train them in obligatory classes as they are not relevant to all the students, but it is necessary to offer the training to those who seek it.

Therefore, this thesis suggests offering a semestral course that would help the student to work on these competences, although the length of the course does not suffice to develop them fully. Further endeavour will have to be made from the side of the students, but this course would allow the student to create a ground and a structure for his or her future self-learning. Creating this semestral course is one of the goals of this thesis.

2.1 Research

Prior to designing the course, it is important to not only study translation teaching theory and to examine some already existing courses throughout the world, but also to do a dedicated research aimed precisely at the area this thesis focuses on. Therefore, a research of Balkan universities that are using Memsource in their courses was conducted. The research was limited to Memsource-using universities because of the aim of this thesis, i.e. to create a

course using the Memsource platform. There are other widely used tools on universities, but they are desktop-based tools that work differently than the cloud-based Memsource. For this reason, results from universities using other technologies would not be as relevant.

The reason for conducting this research was that the data gathered from literature was not sufficient with regards to regional affiliation and specific technology use. Lecturers from universities located in the Balkans did not describe their courses in the available literature and, at the same time, from the studied literature it was not obvious which tools the lecturers used in their courses as they did not specify them. All but one of the universities mentioned as examples in the theoretical part do use Memsource among other tools, but it is not clear which of them they used to create the courses described.

The research consisted of a questionnaire,[123] a series of follow-up questions that were different for each of the respondents as they were formulated based on their responses in the questionnaire, and a final revision of the description written for the purposes of this thesis. This three-round process was done to ensure the highest possible clarity in describing the different courses and programmes.

The aim of the research was to identify how exactly Memsource is used in the courses, whether the tool is used in specialized courses only or whether its use is required throughout the programme, what role does Memsource play in the courses, whether students have to actively explore the possibilities of the platform, what roles in the translation workflow students try, and whether the programme cooperates with any external companies to provide their students with professional experience. Questions related to the size and orientation of the department and to the number of students attending the technology courses were included as introductory questions.

All the questions were open-ended with the aim to gather as much data about the courses as possible without necessary influence from preliminary expectations. The follow-up questions then were used to put all the respondents' answers into a common framework, so sets of features comparable with each other could be set up.

[123] Questionnaire: The Use of CAT Tools in University Translation Courses: A Case Study Based on Teaching with Memsource. Available at: https://goo.gl/forms/tbIYC0UFxHxu1P0x2

The following features were extracted:

Introductory:

1. Language type (Big Language/Small Language)
    - Is the working language of students a big one or a small one according to the definition in the introduction in this thesis?
2. Programme type (Translation/Language)
    - Is the programme, where the CAT course is taught, a specifically translation programme, or a generally "language" programme with some translation specialization?
3. Educational level (BA/MA)
    - Is the degree undergraduate or postgraduate?
4. Students yearly
    - How many students attend the course every year?
5. Using Memsource since…
    - When was Memsource implemented into the course?

Core (Yes/No):

1. Usage of other tools
    - Are any other tools present in the course or in other courses in the programme?
2. Technology-centrism of the course
    - Is the course technology-centred, or is technology just a part of more general course?
3. Presence of technology in other courses
    - Is technology used in other courses as well, or is the course the only one where students can get in touch with it?
4. Real translation workflow employment
    - Does the course follow the real workflow of translation projects?
5. Usage of situated texts
    - Are situated texts that resemble real assignments used?
6. Training in different workflow roles

- Do the students get to try more than just the translator's role?

7. Project-based course
    - Is the course created on project basis?
8. Project management training
    - Do the students receive training in project management?
9. External cooperation
    - Does the programme offer any professional training through external companies?

This feature-set, that was created after the actual research as to follow the real trends described by respondents without unnecessarily influencing their answers, was designed to create some comparison points for the courses. However, since comparing the courses was not the aim of the research, the most important data are those *behind* the feature-set. The features offered a sketch of a structure of the courses, but their real image is created only after returning all the "side information" that had to be omitted to create a comparable structure. Therefore, describing the courses in detail is necessary.

2.1.1 University Profiles

In this section, the courses and programmes that took part in our research will be described and evaluated. This part serves as a point for presenting the individual attitudes towards teaching CAT tools at specific universities that took part in our research. From these descriptions and the programmes described in the theoretical part, the best practices will be created.

A Bulgarian University[124]

This university, located in Bulgaria, asked me to anonymize the data they provided me with. The courses that involve Memsource take place at the English Studies Department, which is a generally language-oriented department. However, it offers a specific MA in translation, where Memsource is trained since May 2016. 10 to 15 students attend the course involving the tool every year.

[124] Appendix I

Apart from Memsource, the technology-centred course also incorporates SDL Trados Studio, which means that other translation technology is used as well. Nevertheless, the use of technology is limited to this particular course.

The responsible lecturer simulates the real translation workflow in the classes on a project basis, where students are divided into groups of two or three. Each of the students has his or her own role as a translator, proofreader, or a project manager. Thus, students can experience the workflow from different perspectives. However, project management is not explicitly trained in the courses—it is a skill developed only through practice. The lecturer wants to develop this part of the course further in the future. Introduction to the translation technology in general and a theoretical insight into Memsource functionality is also present.

The lecturer acts as a client for students as to further increase the real translation environment resemblance. Furthermore, the university cooperates with a translation agency as to provide their students with professional experience before graduation.

All in all, the course offers an introduction to translation technology and to project management skills. Although these are not theoretically explained, students get in touch with the process thus being able to see that translation process is not only about translation, but about different workflow steps that are dependent on each other. Students are shown that they are part of a longer process when translating.

Another positive is that students are not trained in just one tool but are made aware of the fact that more options exist and are confronted with their differences. Thanks to this, students can evaluate the contribution of each of the tools and find the one that suits their translation habits the best. Since translation buyers often demand the translators to work in a specific tool, they will be able to deal with this requirement more easily.

However, the programme could be further developed in terms of project management and extending the use of technology into other courses as well. Since the length of the course is the limit, making this course a “translation practice hub” interconnecting skills trained in other courses could be a way. In order to do that, a project management theory class and a simple translation tools introduction should be added to the curriculum. In such a scenario, the course could become a course resembling the “in vivo” approach that Krüger and Serrano

Piqueras applied at the Cologne University of Applied Sciences described in the theoretical part. As a next step, the domain and translation provision competence training as defined in the theoretical part of this thesis could be implemented.

Sofia University "St. Kliment Ohridski"[125]

At the Sofia University, where Memsource was adopted in 2014, the MA in translation is a joint programme of the Department of Romance Studies and the Department of British and American Studies. There are several language-specific and content-specific programmes lead by other departments, but this is the only programme entirely translation-specific. It offers two language combinations: French and Bulgarian, or English and Bulgarian, i.e. two big language combinations. Roughly 15 to 20 students attend the course involving Memsource every year. The Master in Translation, a programme that is part of the EMT, is Co-Directed by Vessela Guenova, PhD., D.Sc., who is also an Associate Lecturer at the department of Romance Studies.

Dr. Guenova's technology-centred course does not only offer Memsource, but also the SDL Trados Studio, and Wordfast Anywhere. Other non-CAT tool technologies are trained in other courses. Furthermore, several other courses require students to put in use the translation technology trained in these courses thus adding extra experience with the tools.

Students are first introduced to the individual tools and their basic functionality as to have some reference material for their further self-study and practice. Some of the features are left unexplained for the students to discover themselves.

Translation projects are set up as situated translations, where groups of students work with unabridged and unedited texts with a reference TB by IATE and the whole document for reference. Students also receive information on the readership and the purpose of the translation. Each of the groups translates a common document and has to meet deadlines. Students do not get in touch with project management as they only work as translators. However, they have to undergo a compulsory internship at a translation agency and are encouraged to sign for other voluntary placements. During the internship, students can choose to become part of the project management team, but they seldom do so.

[125] Appendix II

Technology-wise, both the course itself and the courses related to it are create a well-balanced environment. Students learn about various CAT tools which gives them the ability to see the difference between the individual platforms. On top of that, they also learn about other technologies related to text processing, which is important for their ability to enhance their working methods even with the tools that are not translation-specific.

Students of this programme also work in groups that are dependent on each other, which allows them to learn to work collaboratively on longer documents. This practice is not uncommon in the real translation market, so it will help them to navigate in it. Furthermore, a special course named “Translation as a Profession” is dedicated to developing students’ translation provision competence thus greatly contributing to their future employability.

The domain competence is also an important part of curriculum through a number of elective courses. Students can choose between a socio-political, legal, medical, economic, humanities-related, literary, or technical specialization, being able to combine more of these at the same time. They can also select a course aimed at developing the competence to translate documents for the EU and its institutions.

Students do not get in touch with the project management side of the translation process due to the length of the course, neither do they get in touch with proofreading or terminology management. However, these skills are trained in other courses during their studies. Proofreading is trained together with text processing and post-editing, while terminology management is trained in a couple of specialized courses. On top of that, the aforementioned skills are also trained during the obligatory internship.

All in all, the course is highly capable to prepare mature translators proficient in technology with insight into the project workflow. The curriculum-wide usage of tools also helps students to see the necessity of tools in their work and the situated translation helps to better prepare students for real practice. The possibility to pick a specialisation among a wide variety of courses offers students the possibility to develop their domain competence prior to graduation thus giving them a competitive advantage. The project management could receive more emphasis or further training, although regional specifics favour translators over project managers at the moment, and students thus tend to prefer translation training.

Babeş-Bolyai University[126]

In Cluj-Napoca, Romania, where the Babeș-Bolyai University is located, Dr. Manuela Mihăescu leads ICT and Terminology courses within the MA programme called European Master's in Translation Studies and Terminology (METT) at the Department of Applied Modern Languages with 10 to 20 students yearly. In Dr. Mihăescu's words, the Department offers "*at the bachelor's level, an interdisciplinary and multilingual curriculum aimed at forming professionals in multilingual communication, cultural mediation, general and specialized translation, terminology and linguistic engineering*. *These competences can be developed further in the Master's programme whose curriculum is focused on specialized translations and terminology in different domains of interest for the Romanian, European and international translation markets (including law, public administration, diplomacy, social sciences and technical fields*)".

The MA programme lasts for two years and is part of the EMT network. Memsource was introduced to the master's programme in 2015 in both ICT and Terminology courses.

Students have to learn two foreign languages along with Romanian as their mother tongue. English or French is offered as a major with German or Spanish as the second foreign language.

Both CAT and non-CAT (such as technologies for audio-visual translation or DTP tools) technology is used throughout the whole programme. The CAT tools are mainly trained in the theory-based ICT course, but their use is compulsory in other courses, such as Terminology or the Practical Module, too.

The Practical Module is a course that connects the experience from other courses into one joint practice and it is one of the main components of the MA curriculum. One of the projects within the module is called Tradutech and it is "*a simulation of a real-life complex translation project, managed by the students themselves. Thus, they can test and develop the project management skills, but also the translation, terminology, proofreaders, technological skills etc*." Students try all of the roles within the translation workflow as they advance in their studies—each of them participates in four Tradutech sessions—one in every semester. In the

[126] Appendix III

project, students also collaborate with their colleagues from other partner institutions, such as Rennes 2.

The Department cooperates with various institutions and professional translation companies, who provide their students with internships and training events about the market practices. Their representatives are also present in the Tradutech sessions. Between 2014 and 2017, Tradutech was included in the OTCT project, where all the partners work in Memsource. The project aims to "*enhance the integration of professionally-oriented practices in translator training curriculum*".[127]

Domain-specialization courses are also offered on top of the language-oriented core of the curriculum. Students are trained in their specializations by domain experts as the department cooperates with the Faculties of Law, Economics, or Business.

There is not much to recommend with regards to Dr. Mihăescu's course and the METT programme in general as it already works as a complete training programme not only for translators but also for other translation workflow-related positions. All the needed competences are trained in a thorough manner, with emphasis on the often-neglected translation provision competence.

Thanks to the programme's structure, students learn to work collaboratively, to see the whole picture of the translation process, and to use and evaluate various technology related to their future work. They are also trained to cooperate with external professionals and to navigate in the translation market, as well as to embrace to challenges that they could not be prepared for in advance. Their specializations are trained in a highly collaborative manner and they are taught to learn themselves and stimulate their own curiosity. Finally, students are given a chance to show their skills and abilities to real translation companies who can pre-select them for a future cooperation. The programme can serve as a copybook example of all the best practices described further in this thesis.

[127] The Optimising Translator Training through Collaborative Technical Translation (OTCT) Project. Available at: http://www.otct-project.eu

St. Cyril and St. Methodius University of Veliko Tarnovo[128]

Dr. Nikolay Popov leads CAT courses at the Department of German and Dutch Studies at the Faculty of Modern Languages, St. Cyril and St. Methodius University of Veliko Tarnovo. The department is not an entirely translation-focused department, but rather a language department with several translation-related courses.

Dr. Popov's courses, into which Memsource was incorporated during the academic year 2016/2017, are attended by 15 BA and 3 to 4 MA students every year. It is important to note that Dr. Popov is not only a lecturer but also a freelance translator, which means that he can provide his students with up-to-date personal experience. Unfortunately, the CAT training is limited to one single BA and one single MA course for the students of German and Dutch, although Dr. Popov conducted a workshop for his colleagues about the Memsource platform.

The courses are project-based, while the number of projects depends on the length of the source texts. Sometimes, several weeks are spent on a single project, on other occasions, one lesson is sufficient. This gives the courses an interesting variability.

First, students select the roles in the project they want to try themselves. However, since some of them pick the same one every time, later in the semester, Dr. Popov choses the role for the students so that each of them tries all the roles. An emphasis is put on the student–project manager as he or she is actually the one responsible for the dynamic flow of the classes: "*If a translator does not do his job as homework, it is not possible to discuss the translation in the class, there is no work for the reviewer, and so on. The lesson could fail. So, the PM-student has to handle this (before the class) and has to give this part of the source text to another student or to translate it himself*."

This approach is very important because it divides the responsibility between the students and the lecturer in a balanced manner and the students become an active part of both the course and the translation workflow thus activating their self-motivation and developing sense of responsibility. Furthermore, since the home assignments are emphasized, students develop time-management skills and they experience what it is like to work from home as a freelancer.

[128] Appendix IV

Apart from the source texts edited specifically for the courses' needs, students are also assigned real texts from Dr. Popov's own translation practice, which helps them see what a genuine project assignment looks like. On top of that, the students are trained on texts from two specific domains that are part of the curriculum: economics and legal texts.

Unfortunately, students are not provided with possibilities of external professional experience as the department does not cooperate with any non-profit organizations, nor translation agencies. Dr. Popov plans to initiate such a cooperation in the future, however.

In general, the courses offer a project-based lessons with texts from the real translation practice of the lecturer in two specific domains. Also, the students have to undergo training in all of the roles in the translation workflow and they have to share the project and class management responsibilities as the smooth flow of the lessons depends on them, too. This gives the students an opportunity to see what the process is about and trains their intra-personal skills. Furthermore, working in groups enhances the cooperation abilities.

On the other hand, students only use the tools in a single course so they are not made aware of the omnipresence of translation technology and might not realize that the technological skills are indispensable for a modern translator. The planned external cooperation to provide students with real experience and valuable contacts is recommended, as well as adding more Specialized Translation-like courses with other CAT and non-CAT tools into the programme curriculum. Despite this being beyond the scope of Dr. Popov's courses, extending the use of technology into as many courses as possible should be the main priority. As a next step, a course focused on developing the translation provision competence as defined earlier in this thesis could be implemented.

University of Novi Sad[129]

In Novi Sad, Serbia, doc. Aleksandar Kavgić leads translation courses designed for students of the Department of English, Faculty of Philosophy. The department is a combined language and literature department with translation courses at both BA and MA level. The CAT tool course, into which Memsource has been introduced 2016, is elective. Apart from Memsource, which

[129] Appendix V

was selected due to the possibility to mimic the real translation workflow, SDL Trados and OmegaT are presented. Over 30 MA students attend the course every year.

The course of doc. Kavgić, who gained his experience working in the translation industry, is currently the only course at the department, where CAT tools are used. There is a discussion about introducing CAT tools into an undergraduate course on technical translation as well and doc. Kavgić also leads several technology-assisted courses.

The CAT tools course consists of "*two hands-on tutorials in the computer lab, where students learn how to use Memsource*" and a series of practical assignments. These assignments aim to resemble real-life translation workflow and are evaluated "*as if the students were professional translators using the QT21 (Multidimensional Quality Metrics) as a framework for grading*". The assignments consist of two large collaborative projects and several smaller tasks.

One of the large projects is based around a literary translation of a children's story, while the second one requires students to translate a technical text, e.g. a user manual. Once, for example, students had to translate reports by the Ministry of Education on accreditation of academic institutions.

Students work in groups of ten that consist of a project manager, five translators, two terminologists and two reviewers. They have to follow the standardized translation procedure defined by ISO 17100:2015 and deliver the job to the professor acting as a client. Only about 8 to 10 out of 30 students get to try the role of a project manager because of schedule limitations, but every student can experience the role of a translator, a terminologist and a reviewer.

The department cooperates with "*the Serbian Government Agency for EU Integrations and, occasionally, with local translation agencies which are members of the Serbian Association of Translation Agencies*". Thanks to this cooperation with external organizations and translation agencies, students can experience what it is like to work in the real translation market and also gain experience with necessary field terminology.

Furthermore, thanks to the structure of the course resembling the real translation workflow, students work autonomously, yet collaboratively. This helps them to develop both intrapersonal and interpersonal skills, both of which are crucial for the career of a translator

or a related position. Thanks to having to follow international standards and being evaluated as professional translators, students get used to following procedures required by their future employers and clients. This is further developed by working in a project-based manner. It is also significantly beneficial that doc. Kavgić is working in the translation industry himself, so that he can mediate to students his workplace knowledge and experience.

Although not all the students try all of the roles in the project, which is a part of the course that could be developed further, given the course-length limitations, students receive all the fundamental knowledge of CAT tools necessary for their future work. It is advisable, however, that the usage of both CAT and non-CAT technology is extended into other courses as well to give the students more time to be in touch with the tools. Given the fact that the department is not a translation department, it is understandable that the CAT course is not obligatory as a part of the students do not need such a training. This fact also enables the department to benefit from the results of this thesis even though it is not a small language department as defined in this thesis.

2.2 The Best Practices

From the data gathered, the "best practices", or, in other words, course features, should be defined before proceeding to the course creation. These will be extracted from the previously researched and described courses—both the courses studied through literature in the theoretical part and the universities whose profiles were created based on the thesis' research. In the theoretical part, several practices that are or are becoming dominant in modern translation teaching have already been described. This chapter will put more emphasis on specific use in practice and in more modular manner.

The goal is to create a set of modules–course features, that would be applicable alone or in combinations when developing translation curricula. That is, what the subsequent CAT course will put into practice, these modules will describe theoretically and with possibilities of different integration.

The individual modules will also resemble the feature-set that was created from the answers of the translation technology lecturers questioned. This is not a coincidence as it was a goal of the research to discover the best practices within the modules: the best practices are a direct

product. This thesis aims to connect the experience of numerous technology trainers to create a general handbook of the practices they use.

Furthermore, it should be noted that the development of technology competence is closely connected with the translation provision competence and should be trained along with it. Technology, the cloud-based CAT tools in particular, offer a not negligible chance to train the translation provision competence as they give students the opportunity to not only get in touch with technology, but also with the project management, standard translation workflow, file handling, document management, etc.

Similarly, some cloud-based CAT platforms including Memsource can be interconnected with platforms of various LSPs and translation buyers through connectors, which enables an easy and streamlined way of providing students with assignments from real companies operating on the market, also giving them the opportunity to start building their name in the industry even before graduation. The companies, on the other hand, can utilize the cooperation to find and pre-select suitable candidates for their vacancies.

For that reason, some of the modules will not be fully technology-oriented. All of them will, however, have impact on developing the technology competence, either directly or through joint development with the translation provision competence. The CAT course envisaged and created thereafter will also build on this competence relationship.

2.2.1 Usage of Competence Models

Although this is not a module per se, it is important to mention because it is a concept whence all the following modules originate. It is the competence models that explicitly expressed the need for the introduction of such modules in a complete, if superficial manner. It would be far-fetched and false to claim that without the competence models, translation industry would not have the current translation teaching practice. The theory behind the models exists without the models themselves. The models are important as a general framework and a handbook that can be used by any translation programme to structure their curriculum. The generalist approach of the models opened the possibility of massive technology implementation in a similar manner at numerous different institutions.

From that point of view, lets sum up what do the competence models, namely the EMT's model, which is the most widely used one thanks to the business power of the EU, want to say: it is the balance and the interconnection of the competences that matters the most. One cannot train a successful professional translator without training all the competences. A translator with low language and intercultural competence won't be able to deliver a quality translation at all. A translation created by a translator with low thematic competence will be linguistically correct, but thematically inconsistent or wrong.

Neglecting the information mining competence will disable the student to gather his own data and critically appraise them thus not allowing him to self-learn properly and develop his skills for the rest of his career. A student with low technological competence will not be able to compete with other translators in terms of speed, efficiency, or terminological consistency, needless to say that technology nowadays affects all of the other competences as well. It is no longer a standalone competence but rather an *approach* that affects all the other competences as well.

Finally, if the translation service provision competence is neglected, the student will be able to create a both linguistically and thematically correct culture-bound translation using the most appropriate tools for the task, but he will not be able to market his work properly.

These models offer a structure that everyone can use to plan a curriculum that will be able to prepare a successful translator. Using the models will in itself not lead to success, but not using them will put the starting baseline below competition's.

2.2.2 Student-centred Approach and Lifelong Learning

Student-centred approach, self-motivation, and lifelong self-learning are too interconnected to be discussed separately. If one wants to create personalities that are able to educate themselves even after graduation, their mindset should be trained accordingly. Of course, this ability is dependent on individual personalities of students, but it can be shaped and steered.

Lecturers should step down from their sage-stage as to give their students the ability to feel how big an influence they themselves have on what they learn. Let the students work on the course content, let them shape the form of individual classes. Experience (the Hamad bin Khalifa University being an example) shows that such an approach not only puts more pressure

on self-motivation of the students. If led correctly, it can enhance the course itself by bringing ideas that the lecturer himself would not think of. Students are not only receivers of knowledge, they are also active creators of it and they should be made aware of this fact.

If a student feels he is in power of the knowledge gained, he will approach it more responsibly than if he felt he is just a machine for meeting the lecturer's need for self-realization.[130] Student should be an active part of both class preparation and execution and should be prompted to not only learn what the lecturer along with his or her classmates offer, but also to seek knowledge in experience through extracurricular activities.

The translation market is dynamic, and it is not possible to supply the students with knowledge from the future. For that reason, students should be taught to learn themselves and shown that their studies are not finished with graduation.

It is inevitable that some students will not be able to cope with such an approach as it requires a high level of self-motivation and a strong desire *to know*. Lecturer must do his best to try to prepare everyone for their future careers, but he does not have to be a magician that turns chronic idlers into active businessmen. It should not be the lecturer's goal to let everyone graduate.

2.2.3 Project-based Learning

Real life assignments are project-based, so should the university assignments. If one is to prepare students for work, it is important to train them similarly. This approach is not suitable for theory-based courses, so it should not be applied in a blanket manner—there are courses that have to be drilled in the basic read-and-repeat way. However, the project-based learning is perfectly suitable for CAT tool and project management training as it offers an easy way to adjust or rearrange the contents of the course on-the-go.

Projects create a modular approach that is not only easily adapted to a current situation, they also help to deepen the student involvement in classes. If the project workflow is structured

[130] CIFUENTES GOODBODY, Nicholas and HARDING, Sue-Ann. An Integrated Approach to the Translation Studies Curriculum. In: Current Trends in Translation Teaching and Learning E [online]. Helsinki: University of Helsinki, 2016, 3(1). ISSN 2342-7205. Pp. 1–23. Available at: http://www.cttl.org/uploads/5/2/4/3/5243866/cttl_e_3_cifuentes-goodbody_2c_n.___harding.pdf

in the same manner as in translation agencies, dividing the tasks and responsibilities of students, students are made dependent on each other and see they are part of the process. Students are also much more likely to cooperate and approach the problematics responsibly if their work and decisions affect their classmates.[131]

It is advisable that the lecturer sets up several shorter projects during the course as that enables him or her to put each of the students in all the necessary roles. By doing this, the lecturer lets his or her students show their strong sides more evenly and he or she can also assess their performance much more precisely than if he or she had only one project to see how the student works.

This approach might also help some of the students to find what they like the best as they will be able to taste the differences of different roles in the workflow. Sometimes, students might have a great potential as proofreaders, but they would never find out if they had not tried before. All in all, the project-based approach offers a highly adaptable, student-centred, accurately assessable, and fair environment that resembles the real-life practice.

2.2.4 Curriculum-wide Usage of Tools

Although this module will not be applicable in the course envisaged in this thesis, it is important to mention for programmes that are more translation-oriented. Having a course where students are trained in translation technology, CAT tools included, is a great start. However, it is not sufficient by itself.

Even in the project-based approach, repetition is still the key to success. Students must get the usage under their skin. They cannot just *be familiar* with the tool, they must be able to actually use it to enhance their performance and they must be able to do it subconsciously. The usage of tools must not be something the students think about, it has to be a fully automated process.

[131] KAMENICKÁ, Renata and RAMBOUSEK, Jiří. Activating Student Autonomy in Translation Training: In-Class and Online. In: ZEHNALOVÁ, Jitka, ed., MOLNÁR, Ondřej, ed. and KUBÁNEK, Michal, ed. Teaching Translation and Interpreting Skills in the 21st Century: proceedings of the international conference Translation and Interpreting Forum Olomouc 2011 organized by Palacký University in Olomouc, Czech Republic, November 11–12, 2011: TIFO 2011. Olomouc: Palacký University, 2012. Olomouc modern language series; vol. 1. ISBN 978-80-244-3252-6. Pp. 93–104.

Therefore, it is important to implement the tools in other courses as well. This not only extends the experience with using the tools, it also provides a possibility to adjust the courses to the current market environment as, in the end, the technology always influences the structure of the course itself.[132] Future professionals should be aware of the omnipresence of technology in the, not exclusively translation, practice. Using the translation technology at least in a connective "practice module" is highly advisable.

2.2.5 Usage of non-CAT Tools

Despite this thesis being about the usage of CAT tools, when talking about structuring translation courses, it is similarly important to mention the use of non-CAT tool technology: various text editors, (online) file managers, search engines, file convertors, collaborative platforms, voice recognition tools, OCR, FTP clients, email applications, etc.

These tools help translators in a similar way as CAT tools. They automate, reduce, or eliminate the work that is connected with translation but is not translation itself: communication with clients, file management, invoicing, domain researching, etc. Thus, these tools let the translator concentrate on what is important—the actual translation process—and give him or her more time and energy to do so.

By introducing students to different tools of the same kind and showing them shortcuts to using them, one not only train them in the tools themselves. A sense for diversity among the tools is developed among the students thus enabling them to critically approach tools they have not yet used nor known about.

Further research would be needed to determine which types of tools to present and which to leave out. This would have to be researched by examining the way advanced translators work and the tools they use to help them.

2.2.6 Situated Translation

This is one of the most important modules. Translation never takes place in a vacuum separated from the outside world. On the contrary, it always has its purpose, original and

[132] SCHERF, Willi G. Training, Talent, and Technology. In: Teaching translation and interpreting: training, talent, and experience: papers from the first Language International Conference, Elsinore, Denmark, 1991 [online]. Amsterdam: John Benjamins, 1992. ISBN 9789027285898. Pp. 153–160. Available at: http://site.ebrary.com/lib/natl/Doc?id=10464491

target audience, culture, and environment, an ordering party, requested effect, quality standard, obligatory terminology usage, deadline, price, etc.

Translation assignments used for training future professionals at universities should be no different as it is essential to train students in an environment resembling the one they are trained for. If the translation assignment's only "reference material" is "translate this until next week and you'll receive ECTS credits", development of numerous competences a translator should have is unnecessarily omitted. In fact thus only the language competence is developed which is an approach not far from the former purpose of translation as a second language (L2) acquisition tool.

When structuring a translation assignment for our students, a simulated environment should be created around it as well. Students should be given the information on who will be the readers of their translations, what effect should it have on them, how much money they would receive for such a task, what terminology they should use, whether a proofreader is going to go through their text, etc. By this situationalization, one is directly preparing the students for the work they will be doing for many years after graduation, not only enhancing their language and translation skills.

2.2.7 Realistic Workflow and Project Management

Not only should the translation be situated, it should also be a part of a whole translation process including project management, terminology management, editing, and proofreading. Students should be aware of the fact that translation is not a standalone task, nor are translators workers independent on other people. Translation is a part of a longer workflow in reality, so it should be such in training, too.

One of the reasons is that even if the student is going to be a translator for his whole life, never touching project management and proofreading, he or she needs to know what is his or her role in the process, what are his or her obligations towards other people involved in the process, and, last but not least, what he or she should expect from others. The introduction of realistic workflow in translation tasks helps students to find their place in the workflow themselves and see the interconnections in the process.

Furthermore, students should experience the different roles, at least in a simulated environment, to be able to actually do the work of a project manager or a proofreader. Although the jobs are different and require different skillsets, it is not uncommon for translators to switch roles during their careers, be it because of a change of preferences, a market situation or a simple desire for change.

This also means that translation students should have experience with managing translation projects upon graduation. It will not only help them to understand what it means to be a project manager, but also it could enhance their own management skills that are a necessary skill for freelance translators. The techniques learned, and tools used through project management training are very useful for "pure" translators, too.

2.2.8 Domain-specific Courses

In translator training, the thematic competence should have its place, although this module is probably the trickiest to achieve since it requires either inter-faculty approach or an invitation of external experts. Nevertheless, examples from this thesis have shown that it is feasible and that it helps the graduates to find jobs after graduation.

Firstly, research is necessary to determine which domains should be taught. Granell, for example, found out that most translators (79%) work in the business/commerce sector. 55% translated technical texts, 53% legal, 40% financial.[133] Researches such as this one can be taken into account but the research date (years 2004–2006 in this example) and regional specifics should be considered, too. Sometimes, such as in the example of the University of Montenegro, temporary phenomena like EU accession can influence the selection. Alternatively, if the translation programme is based on a technical university, such as the one in Flensburg, it will direct one to yet another direction.

Once the domains to be trained have been selected, a way to train them has to be found. As noted already, this can generally be done in two ways. Either external professionals from the individual domains can be invited to teach the students, or cooperation with other faculties at the university can be established, which is often a more practicable option.

[133] GRANELL, Ximo. Multilingual information management: information, technology and translators. Amsterdam: Elsevieri–Chandos Publishing, 2015. Chandos Information Professional Series. ISBN 978-1-84334-771-2. P. 117.

Regardless of the way one achieves to incorporate the training of the thematic competence of the students, it will give the students an advantage in comparison with graduates who had not received such a training. Domain specializations are a must in the modern translation market and both translation buyers and language service providers require translators to be an expert in the field they are translating.[134]

2.2.9 External Cooperation

If a lecturer wants to provide his students with the most realistic training, it is advisable to set up a cooperation with language service providers that will provide the programme with internship vacancies. These companies do not have to wait passively until students are sent to them, they can participate in the training process by either acting as visiting lecturers or by sitting in assessment commissions or taking part in the simulated translation bureaus.[135]

Ways of external cooperation are numerous, and it is only up to the department management which companies they will find and what opportunities will they negotiate for students. It is a favourable cooperation for the companies, too, as they can work on preparing their potential future employees and influence the skills they receive during their studies.

As mentioned, such a cooperation provides the students with experience they would not be able to gain in the academic environment as the real process will always be at least slightly different from the simulation the lecturer can achieve at his or her department. Thus, students get in touch directly with the processes and the people, creating important contacts and connections for their future careers. Furthermore, both the department and the company benefit from the cooperation thanks to constant exchange of information and feedback.

Establishing such a cooperation might also solve the issue with the shortage of technically-skilled staff to train translation technology, project management and other vocational skills as these people work in the area every day. It does not mean that they are automatically capable

[134] ŠANCA, Filip. How to Start a Translation Career: A Guide for Students. Interview with Dragoș Ciobanu. Memsource Blog, 2017. Available at: https://www.memsource.com/blog/2017/08/11/technology-an-essential-part-of-modern-translation-curricula/

[135] These bureaus are not a module, but a combination of modules. We are not explaining this practice in more detail in this thesis as it would stir too far from its original goal. Nevertheless, simulated translation bureaus are a practice that is very helpful for translation programmes, especially if external cooperation is not established.

of teaching students, but this again offers a space for joint learning and possibly for training the trainers themselves.

2.3 The Course: Introduction to CAT Tools and Project Management for Linguists

If a look is taken at all the examples of programmes offering advanced translation curricula that develop all the necessary competences in a balanced manner, one common feature becomes visible. All of them are departments where translation between the native and a big language is taught. The same applies to the results of our survey as all the programmes described work to and from a big language. It is understandable as small languages are economically inferior and will never be as sought-after as the big languages. The point here is that small language departments can benefit from the best practices of the bigger language departments.

Furthermore, technology-wise there is no reason for this economics-based division anymore. Most of the CAT tools are language-independent which means that economic inferiority is no longer an issue—if stakeholders finance a tool to be used for English–German translation, it can be used for a Czech–Serbian translation as well.

The issue lies in the popularity in such language combinations. To be able to set up and maintain a full translation programme, stable flow of students in a reasonable amount is needed. That is achievable with the popular big languages, since there is a big supply that tries to satisfy the big market demand.

With small languages, the situation is different as they do not have enough applicants to establish a full translation programme—simply, the demand is too small to fill the classroom. Nevertheless, the demand is still there and it needs to be satisfied the same way the demand for big languages is. Therefore, the translators have to be trained properly.

As described in detail in the opening of the practical part, the potential translators of languages are then trained at departments that are not translation-specific. In the end, that means they do not graduate as specialists ready for professional translator career but as linguists, historians, philologists, cultural experts, etc. To become a translator, they are missing some of the competences, mainly the technological and translation provision competence, as

these are specific to translation, but not to philology or linguistics.[136] On top of that, the thematic competence is often limited to academic areas such as those mentioned above. Therefore, the lack is mainly visible in the sought-after business and e-commerce, legal, or technical sectors.

The problem is that there is often not enough space in the curriculum to emphasize these competences in the philology-centred programme. These departments are often too general in their current state and incorporating obligatory courses only for translators would only mean further dissolvement of the curriculum. It is not the goal of this thesis to do so, neither does it suggest training all the students taking the programme to become translators.

Nevertheless, if a student wants to become a translator in a small-language combination, he or she has to have a chance to be trained one, at least to a certain extent. For that reason, the final part of this thesis is going to describe a course that was envisaged and developed in accordance with all the theory and research described in the chapters above. This thesis tries to use all the applicable best practices employed by the bigger-language departments to create a course with an aim to supplement the missing competence development at the smaller-language departments.

The course was created as if the author of the thesis was supposed to actually teach it at his department, the Department of South Slavonic and Balkan Studies at the Faculty of Arts, Charles University. However, the thesis tries to make the course applicable to different scenarios at different universities and at different countries. Since the course is modular in nature, it can be adjusted to meet the current and regional needs of various programmes.

2.3.1 The General Idea

In general, the course offers modular training focused on students' own work with a decreased amount of contact hours, which combines project- and assignment-based practice with necessary theoretical preparation. The temporal framework is two (45-minute) hours for a thirteen-week semester with several of the hours being spent working from home on assigned projects.

[136] Technology is used in linguistics as well, but it is not the same technology as translators use.

Emphasis is put on the technological aspect with CAT tools, namely Memsource, which is in line with the focus of this thesis. Memsource has been chosen because of its cloud-based approach that allows easy project sharing and the possibility to collaborate on a project in real time giving the lecturer the possibility to always see the current progress of a given project. Memsource also offers a unique combination of a CAT tool with a project management environment which is exactly the combination this course seeks to offer.

The need to use other tools, including other types of CAT tools, will be emphasized to students, giving them pointers on their own further research of these. The scope of the thesis does not allow to introduce more of these tools in-class. The basic premise is that learning to use a second tool after becoming proficient in a one of similar kind makes the self-learning process easier.

Pointers to non-technological research related to the course will be given throughout the course, too, including related seminars and lectures on other faculties. It is important for students to know that the course only offers a basic introduction to a domain they will need to (self-)study further if they want to become professional translators.

2.3.2 The Course Set-up

The course is divided to theoretical lectures, three home assignments, two larger-scale projects, a seminar on translation provision competence self-training, and two fall-back sessions in case of a lecture cancellation, national holidays or other extraordinary situations.

The theoretical lectures will be held at the beginning of the semester mostly with the home assignments taking place in-between. Evaluation criteria will be set before every assignment and both projects as to give students a clear framework, avoiding uncertainty. Reference materials and data to create a situated translation environment will be provided.

At the beginning of the semester, source language should be defined. At some departments, this will not be an issue as they only offer programmes in one foreign language but region-based studies usually offer more foreign languages. The course will be open to students of all the languages so it is important to find a common language or, if a common language cannot be found, find pairs of students to be working in the same foreign language acting as a source

language in the projects. Often, the second language can be English despite the focus of the department but it is not always the case.

Target language should always be the language students are learning in as it is the single language they all have in common. It is important to note that this language will not be a mother tongue for all the students as it is a common practice nowadays to study in foreign countries.[137, 138] However, since this course is not supposed to develop the language competence, the translation quality will not be evaluated.

It is advisable that translation quality is only evaluated by lecturers who specialize in this field. If the lecturer leading the course is an expert in both areas, he or she can evaluate the translation quality as well but it should be noted that there will not be time for theoretical explanation of the translation problems. A course on translation techniques and theory is a pre-requisite for this course on technology.

As for successful completion for the course, there will be no final exam nor a written test. Students will prove their skills by completing the projects and assignments during the whole semester. As the workload needed to finish the projects will probably prove higher than in other courses, it is not necessary to do a final examination. The lecturer will have enough data for evaluation upon the last project delivery. Students must pass all the assignments and both the projects.

Throughout the semester, the sessions will go from the most basic concepts of translation technology to more complex project management, from short assignments to more difficult several-week projects, and from theoretical lectures to students' full self-learning through the projects. Also, the grading system will be becoming increasingly demanding.

Some of the contact hours may end earlier than expected. Spare time can be used for discussions on topics that emerged during the class or other questions students might have.

It is important to note that the lecturer should be proficient in Memsource prior to further reading and offering this training to students as the functionality of the tool itself is not going

[137] Erasmus Exchange Programme. Available at: http://www.erasmusprogramme.com/
[138] Central European Exchange Program for University Studies. Available at: https://ceepus.info/#nbb

to be explained in this thesis. If training in Memsource is needed, please contact the author of this thesis[139] or refer to the Memsource Help Center.[140]

Week 1 – Point of View: Translation

Before the actual start of the course, students are advised to bring a laptop for all the contact hours.

The initial session is a contact hour where students are introduced to the course structure, technological theory from the translator's point of view is discussed, and first assignment is given.

Students receive a sheet with information on how the course is organized, when the projects and assignments take place, what will the requirements for successful completion be, and what is the concept behind the whole course. Memsource user accounts of the Linguist type (that is without project management rights) are created for students and credentials shared. Source and target language is defined. Domain of the translation tasks is selected in accordance with students' expertise and the focus of the department. Students are asked what their expectations of this course are and possible tweaks are discussed with them.

Basic features and processes from the point of view of a translator are shown and explained:

- user type differentiation,
- different workflow scenarios,
- project acceptance,
- project delivery,
- file types,
- editors differentiation and their features:
    - segmenting,
    - confirming,
    - match-types,
    - formatting tags,
    - comments,

[139] Contact e-mail address: filip.sanca@email.cz
[140] Memsource Help Center. Available at: https://help.memsource.com/hc

    - shortcuts,
    - formatting,
    - in-context preview,
    - filtering,
    - basics of QA,
    - possibility of using own TMs and TBs,
    - Machine Translation usage,
- terminology management,
- file exporting.

Where appropriate, students are pointed towards useful tools to help automate the specific tasks. Furthermore, general hints and observations are provided as an introduction to the translation provision competence. Students who brought their laptops can mimic what the lecturer does on a screen so that they can try it themselves. Others may take notes and try to re-do the process at home.

At the end of the session, students are given their first assignment that will make them put their notes and findings from the first session into practice. The assignment is sent after class directly through the Memsource platform. Students are assigned a short (about a 50–100 word) translation with numerous tags and they are provided with a style guide and evaluation criteria. Data to create a situated translation are included and a TB with a TM are attached to the job. In the assignment, students have to:

- accept the job assigned,
- read through the style guide and other materials,
- handle the tags properly,
- insert two relevant comments,
- add two terms to the TB,
- run QA,
- deliver the translation,
- meet the deadline.

Each of the 8 tasks is worth one point. Students must get at least 7 points (approx. 90%) to get grade 1, 6 points (75%) for grade 2, and 5 points (approx. 60%) for grade 3, that is to pass. It is important to add a certain requirement to the style guide so that it is apparent the student has read it. The deadline should be set early enough to be able to evaluate everyone's job before the second contact hour. A TM with a few sentences and a TB with a few terms, both edited to fit the text assigned, is to be created manually.

Week 2 – Point of View: Proofreading

Lecturer evaluates the first assignment before the second session and distributes the results to respective students. The results are not shared publicly. Lecturer uses a matrix of results (found in Attachment 1) that he or she will use during the semester to evaluate students' progress.

The second session is a contact hour, where the first assignment is evaluated, proofreading theory is discussed, and second assignment is assigned.

At the beginning of the session, students are told to evaluate themselves how they feel about the first assignment. They are asked to describe their difficulties, assess them, and reflect on them. Students are prompted to discuss the problems with one another. Then, lecturer creates a general summary what were the most common errors and illustrates how to handle them properly. Materials for further study or practice are offered where possible.

Once the evaluations are finished, translation theory from the perspective of a proofreader is presented. Information that was already discussed in the first session is not repeated unless necessary. This theoretical session includes a necessary portion of non-technological knowledge. Following topics are emphasized:

- comments,
- advanced QA,
- Language Quality Assurance (LQA),
- error-typology,
- reasoning for edits,
- the need to check formatting, visuals, tags, and other extra-linguistic parts of translation,

- the need for a highly structured approach.

Where appropriate, students are pointed towards useful tools to help automate the specific tasks. Furthermore, general hints and observations are provided as an introduction to the translation provision competence. Students who brought their laptops can mimic what the lecturer does on a screen so that they can try it themselves. Others may take notes and try to re-do the process at home.

At the end of the session, students are given a second assignment. The assignment is meant to test the technological aspect of proofreading competence. The assignment is sent after the class directly through the Memsource platform. Students are sent a short (ca. 50–100 word) proofreading task that contains the following errors:

- misplaced tags,
- wrong formatting,
- typing errors,
- double spacing,
- terminology not matching customer requirements.

Note that no linguistic errors are mentioned as they are not to be evaluated. In the assignment, students are also provided with a few-term TB to be followed as a client requirement.

Apart from proper handling of the aforementioned errors, students are expected to run the basic QA analysis and edit the text according to it. Students should also insert two relevant comments of their choice and meet the deadline. Therefore, students have to

- accept the job,
- correct terminology according to the TB,
- correct misplaced tags and wrong formatting,
- correct typing errors, double spacing, and other extra-linguistic errors,
- correct errors on the basis of QA analysis,
- insert two relevant comments,
- deliver the edited file,

- meet the deadline.

Each of the 8 tasks is worth one point. Students must get at least 7 points (approx. 90%) to get grade 1, 6 points (75%) for grade 2, and 5 points (approx. 60%) for grade 3, that is to pass. The deadline should be set early enough to be able to evaluate everyone's job before the third contact hour. A TB with a few terms and the short error-containing text is to be created manually before assigning the tasks.

Week 3 – Point of View: Project Manager

Lecturer evaluates the second assignment before the third session and distributes the results to respective students. The results are not shared publicly. Lecturer fills in the results matrix.

The third session is a contact hour, where the second assignment is evaluated, Memsource is described from the point of view of a project manager, and a third assignment is given. This is the last of the three, mainly theoretical, opening hours and also the last smaller assignment. Large projects follow.

At the beginning of the session, similarly to the previous evaluation session, students are told to evaluate themselves how they feel about the second assignment. They are asked to describe their difficulties, assess them, and reflect on them. Students are prompted to discuss the problems with one another. Then, lecturer creates a general summary what were the most common errors and illustrates how to handle them properly. Materials for further study or practice are offered where possible.

Once the evaluations are finished, Project Manager accounts are created for students and credentials are shared. User rights are set so that students can only see data they have created themselves. Students log into their accounts and follow what the lecturer does on screen. Those with no laptop take notes and repeat the process at home. These accounts are necessary as Linguist accounts do not offer project management functions and features.

In this session, the following project management and generally advanced features are emphasized (note that many of the project automation features are exclusive to Memsource):

- user type creation and user settings,
- client profiles,

- business units,
- net rate schemes,
- access and security,
- pre-translation settings,
- project creation and management,
- file import settings,
- TM creation,
- TM alignment,
- TB creation and import,
- workflow steps setup,
- automation:
    - automated project creation,
    - project and workflow automation,
    - project templates,
    - automation widgets
- API and other connectors, including MT,
- analytics and dashboards.

Non-technological theory important for the upcoming projects is also mentioned, such as:

- what is to be expected from a client,
- what is to be given to a linguist when assigning a project to him,
- what is to be expected from a linguist upon project delivery.

Students are pointed to relevant literature and other tools that could help them to speed-up the project management process and make it easier. Other general hints are provided where appropriate.

At the end of the session, the third small assignment is given. It should test students' knowledge of the advanced features of Memsource discussed during the session. This time, students are only given two short word files (a source text and its translation) to be aligned as a TM. Note that they have to use their Project Manager accounts for this assignment.

Students should do the following:

- Create a new Project Manager user
- Create a new Linguist user
- Create a Business Unit
- Change the user rights of the Project Manager account they created so that it only has access to the data within the created Business Unit
- Create a net rate scheme
- Create an additional workflow step called “Editing”
- Create a project, assign the net rate scheme to it, activate “Editing” and “Translation” workflow steps
- Assign the Translation step to the Linguist user and the Editing step to the Project Manager user
- Align the two short word files
- Import the aligned file as a TM and assign it to the Business Unit
- Create a TB and assign it to the Business Unit

Each of the 11 tasks is worth one point. 10 points (approx. 90%) are needed for grade 1, 9 points (approx. 80%) for grade 2, and 7 points (approx. 65%) for grade 3, that is to pass. Students should complete their assignment as early as possible as to give the lecturer enough time to evaluate their work before the fourth session. Lecturer evaluates this project management assignment by logging into the respective student profiles and checking whether everything is set up correctly.

Week 4 – First Project: Project Management

Lecturer evaluates the third assignment before the fourth session and distributes the results to respective students. The results are not shared publicly. Lecturer fills in the results matrix.

The fourth session is a contact hour where evaluation of the last small assignment is done and the first project is assigned. Theory that was not clear to the students is discussed and questions are answered. It is important that students feel comfortable in the tool prior to starting the project.

Evaluation is done the same way as in the two previous sessions, putting emphasis on student self-assessment and self-reflection and offering students materials for further study of the

matter. Students are invited to discuss any issues they have encountered during the last three assignments.

Once the evaluation is finished, first larger project is assigned to students. To complete this project, they will use their Project Manager accounts created during the previous session and utilize the knowledge gained until now with emphasis on project management and translation provision competence. In this project, students will have to prepare a whole package that will be used by other students in the second project. That is, the packages created in the first project will be used and followed by other students later in the semester, which means that students have to prepare genuinely usable materials.

During this project, students will also have to activate their research competence, evaluate online data, and utilize their knowledge. They will try the same project preparation the lecturer had to do for the three short assignments. Students will thus become an active part of the teaching process, actively creating learning materials for other students and learning themselves in the process. Students will have three weeks to complete their assignments and deliver them to the lecturer. The assignments to complete the project are following:

1. Research the Internet and find an article that has not been translated yet and its translation would be beneficial. The article should be no shorter than 250 words and no longer than 750 words. The domain is to be agreed upon between the lecturer and the students. Everyone should agree on the same domain. For example, an article from Wikipedia can be used.
    - In a few sentences, reason why you have selected this text.
2. "Situate" the translation. Think of…
    - original audience,
    - target audience,
    - purpose of the text,
    - purpose of the translation,
    - quality level required,
    - pricing,
    - deadline,
    - other factors. These are up to the students; bonus points can be awarded.

        - It is important to include the information on confidentiality, e.g. that no public MT is allowed, and on the fact that there will be no proofreader correcting the translation afterwards.
3. Create a brief style guide for the translation. Students should be prompted to research the Internet for sample style guides and articles on what a style guide is, what should it include, etc. They will have to research this area alone. Several of such articles should be mentioned.[141, 142, 143]
4. Create a short TM: Use a few sentences from the original text and translate them. Add these to Excel, import them to Memsource, and export them as TMX.
5. Create a TB with a few terms from the original text. Add these to Excel, import them to Memsource, and export them as TBX.
6. Write a template of an e-mail that the student would use to offer the job to a translator. No important information must be missing in the e-mail.
7. Act as a Project Manager and answer questions by the student working on a translation task assigned by him during the second project.

Students should deliver the following files:

- Original text with reasoning
- Style guide
- TMX
- TBX
- E-mail template

Note that situating the translation will happen in both the style guide and the e-mail template. The following should be evaluated:

- The text (7 points in total)
    - Appropriateness of the text
        - Length (1)

[141] How to Create a Translation Style Guide and Terminology Glossary. Lionbridge, 2015. Available at: http://content.lionbridge.com/how-to-create-a-translation-style-guide-and-terminology-glossary/
[142] Translator's Style Guide. Andovar Academy. https://www.andovar.com/translators-style-guide/
[143] YIP, Patrick. Why the Translation Style Guide is Essential for Localization. OneSky, 2015. Available at: http://www.oneskyapp.com/blog/translation-style-guide/

        - Domain (1)
        - Lack of translation (1)
        - Need for translation (1)
        - General appropriateness (1)
    - Proper reasoning of the selection (2)
- Situating the translation in the style guide and the e-mail (7 points in total, up to 3 bonus points)
    - original audience, (1)
    - target audience, (1)
    - purpose of the text, (1)
    - purpose of the translation, (1)
    - quality level required, (1)
    - pricing, (1)
    - deadline, (1)
    - bonus points. (up to 3)
- TMX and TBX (7 points in total)
    - Functional TMX (4)
    - Functional TBX (3)
- Language and plausibility of materials (5 points in total)
    - Situating the translation plausibly (1)
    - Language of the style guide (2)
    - Language of the e-mail (2)

The suggested points for individual evaluation criteria are written next to each of them. In total, there are 26 points: seven for the text, seven (plus bonus of up to three) for situating the translation, seven for the TMX and TBX, and five for language and plausibility of the materials. 23 points, i.e. about 90% is needed for grade 1, 21 points (approximately 80%) for grade B, and 18 points (approximately 70%) for grade C, that is to pass.

Students should be working on the project alone for the three upcoming weeks and deliver it early enough as to allow the lecturer to evaluate the projects properly and prepare them for students to be working on them. However, it should be possible for the students to reach out

for advice to the lecturer, so individual consultations should be offered and e-mail contact for the lecturer provided. Students should nevertheless try to work as independently from the lecturer as possible. Discussions among the students themselves should be endorsed.

Weeks 5 & 6 – Home work

Instead of these sessions, students work on the project. If uncertain, lecturer can send a message to all the students asking them about their progress and difficulties. The second lesson of the two can be used as a deadline for the first project.

Week 7 – Second Project: Translation

Lecturer evaluates the first project before the seventh session and distributes the results to respective students. The results are not shared publicly. Lecturer also adjusts the projects prepared by students so that they can be assigned to others. If there are major deficiencies, lecturer sends the project back to the student for a re-work. Because of this, it is suggested that the deadline is set approximately a week before this session. However, it is important to note that the projects prepared are not meant to be perfect as to reflect the reality of the profession. Minor mistakes and deficiencies are to be kept in the project for the translators to tackle. At the end, lecturer fills in the results matrix.

The seventh session is a contact hour, where the first project is evaluated, unclarities are explained, and the second project is assigned. It is of great importance that all of students' questions regarding the first project and any other questions are answered prior to assigning the second project.

During the second project, students will be cross-assigned jobs created by other students during the first project. This is an important aspect of the course as students get to realize they are a part of a chain and their actions affect their colleagues' work. Thanks to this approach, students also approach their tasks more responsibly than if the materials they prepare were to be scrapped without real use. Finally, students train their cooperative and communicatory skills as they have to act as project managers and provide answers to students translating the file prepared by them. This way, they also have to defend their previously made decisions.

If a common language pair has been agreed upon, the projects can be assigned arbitrarily by the lecturer. If students have chosen their language combinations in pairs, this decision is to be respected.

During the projects, students actually work in a scenario where the translation agency they are working with does not have a Memsource license, while they do themselves, as they have to export and import data in data interchange formats and write e-mail templates. The other scenario, where the LSP does have a Memsource license too, was put into practice in the first three small assignments as students were distributed the files directly through Memsource interface. This approach is to prepare the students for both scenarios.

In accordance with the delivered files from the first project, students are assigned the following files:

- Original text with reasoning
- Style guide
- TMX
- TBX
- E-mail template

Their task is then to:

1. Read all the supplied data thoroughly and make sure the guidance is understood and followed throughout the translation task.
2. Write an e-mail as a reply accepting the job and clarifying everything that is not clear. Do send the e-mail.
3. Create a Project with a Job in Memsource, uploading the original text.
4. Attach the TMX and the TBX to the Project by importing it to Memsource.
    a. Make sure changes will be made to the TMX and TBX while translating.
5. Do a pre-translation analysis and export it into CSV. Include internal fuzzy matches.
6. Translate the file and do the following while translating:
    a. Follow the style guidelines.
    b. Follow the terminology requirements.

c. Add 3 to 5 relevant comments to segments that need further clarification or to segments where explicit justification cold be required.
d. Add 3 to 5 terms to the TB, making sure they are relevant and specific to the text being translated.

7. Export the translated text, the TMX, and the TBX.
8. Export the MXLIFF project file. This is for the lecturer to be able to view the added comments.
9. Create an invoice for the job. Invoicing is not shown during the course so students have to research themselves how to create an invoice. Several guides and samples should be provided[144] with a reference to free online invoice creating software.[145, 146]
10. Deliver all the files to the project manager, sending a copy of the e-mail to the lecturer.

Students should deliver the following files:

- The initial e-mail accepting the job,
- Pre-translation analysis in CSV,
- TMX,
- TBX,
- MXLIFF,
- An invoice,
- The e-mail delivering the job.

The project is then evaluated followingly:

- Correct files delivered: (7 points in total)
  - Initial e-mail (1)
  - Pre-translation analysis (1)
  - TMX (1)
  - TBX (1)
  - MXLIFF (1)

[144] How to Create a Professional Invoice Template (With Sample Invoice Templates). Available at: https://invoice.2go.com/sample-invoice-template-guide/
[145] Waveapps. Available at: https://www.waveapps.com/invoice/
[146] Invoicely. Available at: https://invoicely.com/

        - Invoice (1)
        - Delivery e-mail (1)
- Files contain correct data: (7 points in total)
    - Pre-translation analysis contains internal fuzzy matches (1)
    - TMX contains the translated segments (1)
    - TBX contains added terms (1)
    - MXLIFF contains comments (1)
    - Invoice contains all the necessary information (3)
- Communication: (6 points in total)
    - Initial e-mail (3 points in total)
        - Style (1)
        - Data (0 to 2 points depending on how much data was missing and how much of the data students asked for. That is, if there is no data missing in the project, student gets automatically 2 points. If a significant amount of data is missing and student requests none of it, he gets 0 points.
    - Delivery e-mail (3 points in total)
        - Style (1)
        - Data (0 to 2 points, the same rules as with the initial e-mail apply)

For the second project, students can get 20 points in total. Suggested amount of points is written next to each of the evaluation criteria: seven points for files, seven points for data the files contain, and six points for the communication and its style. 18 out of the 20 points, that is 90%, is needed for grade 1, 16 points (80%) for grade 2, and 14 points (70%) for grade 3, that is to pass.

Similarly to the project management project, students should work as individuals. Nevertheless, it is advised that students discuss problems and uncertainties with one another or with the lecturer if needed. Additional study materials can be provided for students to research and enhance their competences further. Students should deliver the completed projects early enough as to allow the lecturer to properly evaluate them for the last project evaluation session.

Weeks 8 & 9 – Home work

Instead of these two sessions, students work on the second project. It is recommended to set the deadline for the ninth week to leave enough time for proper evaluation and possible project re-work if deficiencies are significant but the student shows effort and will to improve himself or herself.

Week 10 – Project Evaluation

Prior to the session, lecturer evaluates the second project and distributes the results.

The tenth session is reserved for the second project evaluation and general summary of the whole course. It is a contact hour. Unanswered questions should be answered and the whole evaluated module should be closed. Students should not leave the session with unexplained questions related to the platform or the workflow, so it is important that all the previous theory and practice is properly explained.

By now, students should be proficient in the Memsource platform and should be familiar with the basic project management and translation processes. They will have created a fair amount of data themselves and this data should not be scrapped. It is highly advisable that the data are saved and re-used in the future, e.g. as reference materials for next students.

It is possible to either make the data publicly available through creating a custom knowledge base, or to save the data locally for internal use only. Both approaches are valid and depend on one's expectations and requirements.

Week 11 – Translation Provision Competence

The eleventh session, which is ungraded, is dedicated to further development of the basics of translation provision competence. This session is not supposed to be fully technology-oriented, but rather technology-related. This session is bound to be quite unstructured and depends heavily on the lecturer's own experience and practice as the information provided should be first-hand.

One of the suggested areas to be discussed is how to find and retain clients, which is closely connected with activating students' ability to educate themselves for the rest of their careers, as well as with mentioning different both local and worldwide professional communities. Apart from this, brand-building and marketing aspects of the translator's profession should be

discussed, including the need for maintaining a professional webpage and profiles on different media and forums.

Student should be given general tips on how to communicate with clients, customers, and colleagues. This area offers a quite extensive number of books and periodicals, so it is advised that students are prompted to research this area further themselves. Generally speaking, students should be told to use all of the possible knowledge sources, including Internet, to both gather data to research their translation domains and develop their skillset. The importance of specialization should be emphasized again and the existence of groups specializing in different domains mentioned.

If any of the important non-CAT tools were mentioned during the sessions, they should be mentioned now and students should be advised to test them as to further enhance their work efficiency. Time-management issues and methods can also be discussed.

General principles and ethical maxims should be consulted with students on a discussion basis. The approaches to accepting and refusing jobs should also be a topic. Students should know that it is not a problem to decline a job from time to time but they also should know how to deal with such a situation properly.

Both the importance and pitfalls of NDAs and other contracts should be discussed, as well as the idea of "trial" translation jobs that are used by translation agencies to test one's skills and are often not paid. These unpaid jobs are often perceived as necessary evil by the students so they should know that such practice is not an ethical one.

All in all, this session should rather be a discussion pane between the students and the lecturer, where the lecturer will provide topics to be emphasized and a professional framework for the debate. A handout with a summary of the aforementioned points including relevant links and pointers can be created for students' future reference. This session in itself is not able to provide students with all of the necessary information. It should serve as a gateway to further study; students should realize that there is still a lot to learn.

Weeks 12 & 13 – Spare sessions

The last two sessions can be used in several ways. It often happens that national holidays appear on the days when lectures should take place and thus lower the number of sessions

the lecturer has. Similarly, the lecturer is sometimes forced to cancel some of the sessions. In these scenarios, the spare sessions can be used as a replacement for the cancelled sessions.

On other occasions, the assignments or especially the projects may prove too difficult or the lecturer might need more time for the evaluation, so the deadline has to be extended. Similarly, sometimes students request an additional session of theoretical introduction to feel more secure in the matter. Thanks to the spare sessions, the lecturer does not have to cancel the ending sessions because of this.

If none of the circumstances happen, if agreed upon with students, the spare sessions can be used for further development of the translation provision competence.

2.3.3 Grading System and the Results Matrix

The grading system is meant to be as clear as possible and should not allow for any disagreements between the evaluator and the students. Each of the points should be awarded for a specific and strictly defined criterium that cannot be affected by personal views and feelings of the evaluator. The only points that can be affected by taste are the points for style of the e-mails, so they are not too many and, in reality, only allow for a division to fail–average–perfect.

The criteria for individual projects and assignments are written in descriptions of respective sessions. It is important to clarify that an "assignment" is regarded as a task of smaller volume and of lower difficulty. A "project", on the other hand, is a several-week task of larger volume and of higher difficulty. Because of that, the three assignments have the same weight as one project. Therefore, the final grade of students should be calculated from the individual grades (calculated using the scheme in the descriptions) using the following formula:

(((A1+A2+A3)/3)+P1+P2)/3) = F

A1 = Grade for Assignment 1

A2 = Grade for Assignment 2

A3 = Grade for Assignment 3

P1 = Grade for Project 1

P2 = Grade for Project 2

F = Final Grade

The formula uses simple arithmetic mean to calculate the final grade, while giving the grade from assignments only a one-third value in comparison with the projects. That means that, in practice, the whole course acts as a series of three projects.

In other words, to calculate the final grade, one must first add up the three grades for assignments and divide them by the number of assignments, which is three. Then, the united grade for the assignments is added to the grades from projects and the result is, again, divided by the number of the grades, that is by three.

It is possible that the result ends up being right in the middle of two grades. In that case, two approaches can be taken: The grade can either be mathematically rounded (which means that a result of 2,5 would become a grade of 3), or the effort put into the course and the approach the student had towards it can be considered and let to affect the grade. It is important to note, however, that such an individual approach should be explained to the student first.

Result matrix for all the assignments and project together with an automated grading system is attached in Attachment 1.[147]

2.3.4 Summary

This course was created based on examination of two groups of universities. One of the groups were universities whose representatives described their translation programmes in journals and in conference talks. The second group were Balkan universities that use the Memsource platform. Thanks to this approach, two important factors were merged. From the first group it was possible to create a set of best practices used at advanced translation programmes. Then, these practices were regionalized and further specified by researching the second group of universities.

In the end, it was possible to create a region-matching set of criteria that create an advanced translation programmes following the latest trends in translation teaching set by different

[147] Attachment 1 can be downloaded here: https://drive.google.com/open?id=1V_iGQYK2RsP251AW6zTnI4I-xfImHEL1

international standards and organizations. This set of criteria was then applied at small language department environment where translation does not have enough space to be trained thus not offering the possibility to fully develop all the competences needed to become a professional translator.

Thus, a course has been created that follows the latest trends in the industry using the best practices, criteria, and evaluation approaches, deriving these from actual translation programmes. The course then brings these practices to environment, where these could not be fully developed by themselves.

To summarize the course in accordance with the best practices described in the previous chapter: The course was created using the valid competence models used both by developed translation programmes and involved industry organizations. It is a modular, project- and assignment-based course that emphasizes students' role in the learning process and activates students' ability to learn for the whole length of their careers.

Furthermore, the course applies realistic workflow and project management, in which students participate actively thus experiencing the simulated environment first-hand. Thanks to this, students also get in touch with different roles in the workflow and realize that translation takes place in highly inter-connected environment. To further develop this embedding, in the course, students work with situated translations, which they have to create themselves, and they also have to cooperate with other students.

Non-CAT tools are used where necessary but there is not enough time to work on this criterium fully, so students' own research is highly suggested. As only one course is created, not a whole curriculum, the cross-curriculum usage of tools should be employed on top of the course. In this regard, it is suggested that students use the tools trained in this course in other translational courses as well.

Similarly, the course does not develop domain competence as that should be a commitment of different courses throughout the curriculum. This can be achieved by external cooperation with different faculties and departments, which can provide necessary specialists. External cooperation should also be used for providing students with mandatory internships that they could use to further developed their skills and competences.

3 Conclusion

This thesis was divided into different both theoretical and practical parts whose primary aim was to, in the upshot, help prepare professional translators open to technology and able to embrace the dynamic world they are going to spend their working lives in. Ultimately, the introduction of the technology-centred course should lead to spreading of various computer tools throughout the programme, creating a modern technology-based environment capable of creating professionals able to take advantage of the latest trends.

First, the terminology was defined, and a brief historical sketch was drawn to introduce the subject and to ensure terminological consistency. Then, the reason for writing this thesis was clarified by revealing the need for such a text using both publications from experts from the field and research results, and personal experience with the current state of the market. Finally, the theoretical part was rounded off by looking into the current state of translation technology teaching in different translation programmes around the globe. The last part was also important as a source of training practices used at big language departments.

As the data gathered from the theoretical part of the thesis were not in itself sufficient, a supplementary research was conducted to support this thesis. The results were presented in the first and the second chapter of the practical part, where the best practices, one of the two goals of this thesis, were defined. The whole thesis resulted in identifying the best practices used during translator training and creating a semestral course for linguists that wish to pursue a career of a professional translator.

The research confirmed that translation technology training is mostly limited to big language departments, as well as is the development of the domain and translation provision competences, which are crucial for professional translators to start and maintain their careers.

Furthermore, the research identified several best practices to be applied to translation courses. Although developing all the practices at the same time is essential, several broader trends can be highlighted: It is important for the departments to not limit the usage of technology to specific courses or tools—students should experience what power does technology have over what they do. The programmes should not be designed as ivory towers, as the graduates will work in an open world of the free market—both interinstitutional and

international collaboration should be strived for. Finally, students should be put into the centre of the training process thus activating their (self-)learning abilities and giving them the opportunity to experience that, in the end, their own endeavour is what shapes them the most.

A functional standalone course was created using these best practices, thanks to which the thesis was successful in meeting its goals. What is beyond the scope of this thesis, however, is the actual implementation, which should be done to ensure the quality of the course and further develop it in a real environment. It is important that the best practices were defined and that the course was set up but without putting these to a test through real use, the theory will not have any impact.

Not applying the suggested scenarios within the framework of the thesis is the thesis' downside, and it offers space for further development of the work. Nevertheless, while working with the Balkan universities to conduct the research, the author also discussed implementing the discovered practices with the lecturers and programme directors at their institutions. Although some of the programmes were so advanced that they did not require significant development, the universities were offered help with the implementation where suggestions could be made. For this reason, the thesis also delivered concrete practical results.

Apart from implementing the defined practices, a research to find correlation between specific practices and students' employability could be conducted to provide data that would shed more light on which of the approaches are the most influential. A quantitative approach to the subject, as well as extending the scope of the research beyond the borders of the Balkan region, could also help to enhance the courses further.

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Appendix

In the appendixes, the answers of professors from the research conducted can be found. The questions given to all the professors are written in roman characters, while the personalized supplementary questions are written in italics. The professors' answers are not edited.

Appendix I

This appendix is an un-edited interview with a lecturer from the anonymized Bulgarian university.

What can you tell me about the department you work at?

I work in the English Studies Department of ***, it consists of 13 lecturers all specializing in different areas and it is definitely not a translation oriented department only. We have no subdivisions.

In your department, are there any translation-related programmes/degrees or is the translation technology course a part of second-language acquisition programme?

The department offers a translation oriented MA degree and our translation technology course is part of it.

When, and why, have you started teaching translation?

I started teaching Translation Technologies in 2012. I have always been interested in translation, it is my passion.

When, and why, have you joined the Memsource academic program?

We joined the Memsource academic program in May 2016, as we wanted to show and provide our students with access to one of the fastest developing translation platforms, because we believe that a translator must have a good knowledge of and take advantage of the cutting-edge technologies in the field.

How many students attend your CAT courses every year? Are they BA, MA, or PhD students?

For now, the course is only available to MA students and it is attended by 10 to 15 students every year.

How did the implementation of Memsource change your courses?

Before Memsource we only used SDL Trados Studio in our classes. Now with the implementation of Memsource we could re-structure our classes a little and put our students in a real situation where some of them are acting as PMs, some as linguists. They get different tasks, some of them are translating, others are proofreaders or reviewers only, we even implemented the role of the terminologist and have terminology projects. Students now receive some theoretical background and get real practical experience. We mostly work with administrative texts.

In what way do your classes resemble the real situation? How do the classes look like?

We try our best to put our students in real life situations, but we are pressed for time as the classes we have are not that many. I distribute the files for translation and additional materials and divide the students in groups of two/three. The first one takes the role of PM, then they or somebody else is appointed as a translator, the work is then given to another student - acting as a reviewer. Then we discuss the projects.

Are your courses technology-centred or is technology just an addition to them?

I can say that our course is technology-centred as we aim to present translation technology to our students and to increase their awareness.

You say that your "course is technology-centred." Is translation technology taught only in that one specific course of yours or do you (or your colleagues) present it to your students in other courses as well?

Translation technology is taught only in this course. I hope this will change.

How do your students learn about Memsource functionality?

The first part of the course is aimed at the introduction of the idea about translation technology, the second part is about the use of Memsource functionalities in the every-day work of a translator (they see how the individual features work), and the third part (the longest part of the course) is for them to try the functionalities of the platform themselves.

How does a common translation project your students work on look like?

At the beginning of the course every student receives a username and password for their own PM profile, which is available to them until they pass the test. They are usually divided into

groups and some are acting as translators, others as reviewers, and I am acting as the client. During the time of the course they receive multiple small tasks which they are to fulfil for a certain period of time.

During the course, your students "receive multiple small tasks". Could you please give me an example of what do the tasks look like?

Well, students take part in a small terminological project. They also get several files, each having a deadline, they have to present to me.

What roles in a translation project do your students try?

Our students try all kinds of roles. They act as translators and reviewers mainly, but have terminology projects and are acting as terminologists as well, they work as project managers too.

Your students work as project managers as well. What do they have to do in terms of project management?

Due to the limited time of the classes I didn't have time to develop this phase enough so they are only preparing the job for translation now, but I have some ideas for the future.

Do you cooperate with any external non-profit organization or translation agency to provide your students with professional experience?

Yes, our University cooperates with a well-known translation agency, which requires the use of CAT tools, and provides students with the chance to get some professional experience before they graduate.

Do you notice any impact on students translation/project management processes and/or results when they complete the internship?

The impact of their translation internships is really visible - they get more confident and more aware of the challenges they'll have to face in their future career.

Are there any obstacles when teaching CAT tools? If so, what are they?

As always there are some obstacles like the need for better equipment, larger computer rooms and purchasing expensive software.

Appendix II

This appendix is an un-edited interview with Vessela Guenova, PhD., D.Sc., a Co-Director of the Master in Translation at the Sofia University “St. Kliment Ohridski”.

What can you tell me about the department you work at?

The Faculty of Classical and Modern Philology at Sofia University “St. Kliment Ohridski” with its 11 departments and 19 degree programmes, stands out as the largest faculty of Sofia University.

In addition to the Departments of Classical Studies, Romance Studies, Germanic and Scandinavian Studies, British and American Studies, Spanish and Portuguese Studies, there are also the Departments of Methodology of Foreign Language Teaching and the Department of Modern Languages (for students with other majors), as well as the Departments of Arabic and Semitic Studies, Turkic and Altaic Studies, Studies of the Classical East, and the Department of East-Asian Studies.

The Faculty of Classical and Modern Philology is a unique centre for non-Slavic languages, literatures and cultures. The staff includes 216 full-time and 300 part-time lecturers.

Our MP in Translation is a joint Master programme of the Department of Romance Studies and the Department of British and American Studies. We offer degrees in Philology but also in Translation and several more areas. For further reference please see https://www.uni-sofia.bg/index.php/eng/the_university/faculties/faculty_of_classical_and_modern_philology/degree_programmes

On the page you sent me, I have found three MA translation programmes: "Hungarian Culture and Translation", "Language - Culture - Translation", and "Translation". Which of them is your programme and what makes it different from the other programmes?

Our programme is “Translation”. These are language-specific and content-specific programmes. The first is dealing with Hungarian culture AND translation probably HU-BG/BG-HU, the second – with English and American language and culture, and only accessorily Translation EN-BG/BG-EN. Our programme is entirely translation-specific and offers two foreign languages – you can do French-Bulgarian and the reverse, English-Bulgarian and the reverse, or both French and English/Bulgarian and English and French/Bulgarian.

To my knowledge the other programmes do not offer any CAT technology courses.

When, and why, have you started teaching translation?

I started teaching translation from my very admission as an assistant to the Department of Romance studies by an open competition in 1993, as the place was for an assistant in translation and interpretation. Since then, I teach in two main areas: Translation and Medieval, Renaissance and Classicist French literature.

When, and why, have you joined the Memsource academic program?

Our programme has joined the Memsource academic programme in 2014. We wanted to broaden the scope of CAT software we presented and taught to students.

How many students attend your CAT courses every year? Are they BA, MA, or PhD students?

Roughly between 15 and 20, all MA students.

How did the implementation of Memsource change your courses?

Yes, I completely restructured my CAT tools course this academic year (2016/2017) in order to provide more hours for teaching different CAT software and solutions, including Memsource. The year before, the course underwent another restructuration, also in order to provide more space for acquiring practical CAT tools skills.

What had the course consisted of before the introduction of CAT tools?

It has always included some training in CAT tools. But initially, the content was 50/50% advanced text processing (also an useful technological skill) and Trados Workbench (TWB) as a CAT tool (which was working together with MS Word at this time). Well, it was maybe 10 years ago. Progressively, CAT tools developed and needed more and more time as I wanted to give the students up-to-date training not limited to a single CAT any more, though it is still the most present on the market.

Are your courses technology-centered or is technology just an addition to them?

The course I am teaching is devoted only to CAT software. It always starts with a general introduction to the principles of CAT tools, which are not always easy to master by linguists. Then it has been centered this academic year on three CAT solutions for professional translators: SDL Trados Studio, Wordfast Anywhere and Memsource. Before the restructuring

the course also included text processing, but it has been moved to another course as time wasn't enough for students to master well the CAT tools.

Is it the only course in your programme where CAT tools are taught? Are you the only one presenting them to students?

Yes, but you should take into account that there are several other courses that require students to put in use the skills acquired in this course, e.g. that give work and assignments assuming that the students master the CAT usage. Also, the internship always includes work through CAT tools.

How do your students learn about Memsource functionality?

I always start with a PowerPoint presentation where I introduce Memsource and its basic functionality; this presentation serves them as a handy reference for the subsequent practical work. I leave several features for the students to discover themselves, as they have to learn to master new CAT tools by themselves. The assignments were as close to real-life professional translation projects as possible, and were assessed accordingly.

In what way do the assignments resemble real-life projects?

They were real documents, unadapted and unabridged. I assigned only the technological part of the exercise as if it was done by professional translators. The courses that build upon the CAT skills of the students will assess both.

How does a common translation project your students work on look like?

There are groups of students and each group works on a single document. I split the document in equal parts through Memsource, attach an empty TM, a reference DB (IATE) and the whole document for reference, and assign work to the students the same way work is assigned to linguists. The documents are real documents with a high level of difficulty. I choose them so that every student has roughly the same amount of work. They all have a strict deadline.

Are all of the students in the group translating, or do some of them have other roles?

At this stage, they didn’t have any other roles. They do have other roles on the stage of the Translation project simulation, one of the next courses I was talking about above.

What roles in a translation project do your students try?

Up to now, only the linguists' role.

Do you cooperate with any external non-profit organization or translation agency to provide your students with professional experience?

Yes, we provide a compulsory internship at a translation agency and we encourage voluntary internships at various LSP.

What effect does the compulsory internship have on your students? Do you see any improvement in students' translation/project management techniques and/or results after they complete it?

This is a very large question. The internships are usually aimed at introducing students to the real professional work environment and making them function as real professionals in it. They receive a batch of different tasks which contain not only translation, but also, revising, proofreading, work with CAT tools, aligning, some PM skills (but only for those who have expressed a particular interest in PM, as this is not a focus in the study – Bulgaria is a small market and has more than enough PMs in the LSPs). All these are assigned and yes, students usually mark a progress. They also find the internship very useful.

Are there any obstacles when teaching CAT tools? If so, what are they?

1) The computer rooms don't always have enough space to accommodate all the students, and 2) most of the students also work during part of the day or even during the whole day (we do not encourage that, but don't sanction that, either) and they are not always able to assist to the courses; then some of them may have difficulties on mastering the CAT software. But we work a lot in a distance relation too and I am always available by email for questions and problems. Actually, they manage nearly all to pass the course successfully, e.g. to master the CAT software principles and practice.

Appendix III

This appendix is an un-edited interview with Dr. Manuela Mihăescu, a lecturer of ICT and terminology from the Babeş-Bolyai University.

What can you tell me about the department you work at?

I am a Lecturer with the Department of Applied Modern Languages of the Faculty of Letters, Babeş-Bolyai University, Cluj-Napoca, Romania.

The Department of Applied Modern Languages offers an interdisciplinary and multilingual curriculum aimed at forming professionals in multilingual communication, cultural mediation, general and specialized translation, terminology and linguistic engineering.

The core language-oriented component of the curriculum is complemented by courses pertaining to the fields of communication, economics and law. IT skills are also developed throughout the entire period of study. The Department offers English and French as major subjects in combination with German, Spanish, Italian and Russian. The entry requirements are advanced proficiency in two foreign languages as well as a thorough command of Romanian as a mother language.

The Department has two European Masters Programs, European Master's for Translation Studies and Terminology (METT) and European Master's in Conference Interpreting (MEIC) (both lasting two years) in preparing students for language professions such as translator, terminologist and respectively conference interpreter.

I am also a staff member of the European Master's in Translation Studies and Terminology.

Are these field-specific courses offered by your department or are they provided by other departments/faculties?

Yes, the field-specific courses are offered by the specialized faculties. We collaborate with Faculty of Law, Economics, Business etc.

When, and why, have you started teaching translation?

I teach ICT (Information and Communication Technologies) and Terminology. I do not teach the translation courses

When, and why, have you joined the Memsource academic program?

We joined the Academic program and introduced the Memsource tool in our master curricula in 2015 and have been working with it since. I teach Memsource in my ITC and Terminology courses.

Also, during the OTCT project (http://www.otct-project.eu/), all partners started working with this tool, especially for the Tradutech program (a program for intensive translation work in teams and within an international collaboration).

I understand that the use of technology is not limited to your course, i.e. Memsource (and other technology) is used throughout the whole masters in several courses. Is that correct?

The teaching of the technology is limited to the ICT courses, but the students must use the technology in other several courses, e.g.Terminology, Practical module (specialized translation) etc.

For Terminology courses i.e., especially for terminological databases (or for AV translation) the use of technology is compulsory.

How many students attend your CAT courses every year? Are they BA, MA, or PhD students?

We have an average of 10-20 students a year. I work with the MA students only.

How did the implementation of Memsource change your courses?

Introducing and implementing the Memsource tool in my courses was made in a very fast way, I did not have to change the structure of the course's administration, just a short adaptation in the main subjects. The Memsource program is designed to be very practical and easy to use, which means that it requires minimum training, practically it is ready to be used, and this proved very helpful for my courses.

Moreover, the students were familiarized with the structure and functionalities of these kind of tools, so the teaching was concentrated on the new (or different) technology component capabilities, especially project management and cloud computing (in the field of translation, the skill in these areas are very significant and with a high demand from the translation companies, so it is important for students to be able to demonstrate them).

They learn Memsource in ITC classes and then they can apply the knowledge of this tool in translation and terminology courses.

Are your courses technology-centered or is technology just an addition to them?

If we refer to the ITC course, yes, it is basically technology-oriented, but not very "technological". It is adapted to the technology tools for translators, to help the students take full advantage of this innovative technology.

I try to make the course in a "transdisciplinary way", which means that the students learn how to use Memsource for their translation projects.

But, during the second year, the ICT course topics try to cover also, all types of technology tools that can be useful for translators (AV technologies, VO etc. for oral or written translation, DTP).

How do your students learn about Memsource functionality?

I always start with a short introduction to present and describe the functionalities of the tool, the main characteristics and functions, and presenting the impact of this tool for a translator's profession.

Usually, we create certain types of tasks or situations from the real environment and they must discover and try themselves how the tools can do this, or how they can use the tools to accomplish the tasks. We start with the simple tasks (start up a project, set up TM, BT, translation, save the project etc.) and then we increase the complexity, discussing the detailed features of some functions, especially the effectiveness.

The objective of the course is rather to learn how they can use the tools, in more detailed and effective way, for their translation projects. The study of the tool in itself is encouraged initially as self-study/independent autonomous learning, by using the documentation and tutorials, subsequently, learning is enhanced by interaction/discussion during classes.

How does a common translation project your students work on look like?

As I already mentioned, I do not teach the translation courses, but together with one my colleagues, prof. Anca Greere, which teaches translation courses, we coordinate a translation project within the Practical module (one of the main, compulsory, component of master's curricula).

The project is called Tradutech and it is a simulation of a real-life complex translation project, managed by the students themselves. Thus, they can test and develop the project management skills, but also the translation, terminology, proofreaders, technological skills etc. (all the translation process steps).

There is one Tradutech session per semester where the students (from 1st and 2nd year of the Master's program in Translation Studies and Terminology) can experience the different roles and tasks, corresponding to their level of training. This allows students to see the various

facets of the work language professionals engage in, and it complements the theory offered through the courses giving them the opportunity to put in practice concepts discussed in class.

What roles in a translation project do your students try?

During the two years of master study, each student must participate in the four main full-scale translation process sessions (four Traductech session). The project is set to allow both 1st year students and 2nd year students to be involved in the project in line with the level of training and expertise they are at within the curriculum.

Some students act as project managers, some students act as terminologists, translators, proofreaders, desktop publishing (DTP) experts.

More exactly, the 1st year students focus on terminology and translation transfers and have the opportunity to test out some project management activities. The 2nd year students will take on tasks of revision, LQI, CAT-tools usage, DTP, coordination, training/briefing of the team and full project management.

Do you cooperate with any external non-profit organization or translation agency to provide your students with professional experience?

Yes, we collaborate with professional translation companies; they are periodically invited to provide some training events, which give students information about marketplace conditions. They are also involved in the Tradutech sessions for LQI and feedback to students.

Every year, the students will also carry out internships as placements in institutions and companies where language professionals are required.

Are there any obstacles when teaching CAT tools? If so, what are they?

Particularly for Memsource, no, there aren't any obstacles in teaching because of its user-friendly and intuitive capacity, very flexible and easy to learn.

But, in general, there are some other CAT tools with some very complex, unusual features which are more difficult to learn/study and for which the efficiency for a translator can be questionable. Moreover, the design of certain functions may be deemed "uncomfortable" for the translators. In this case, it is quite hard to explain to students why they must use or try some of these functionalities, because in a real environment a translator rarely opts to use such functions as their performance is unlikely to increase in effectiveness.

Appendix IV

This appendix is an un-edited interview with Dr. Nikolay Popov, a Dutch language and translation lecturer from the St. Cyril and St. Methodius University at Veliko Tarnovo.

What can you tell me about the department you work at?

My department is named Department of German and Dutch Studies and has 15 employees. It is part of the Faculty of Modern Languages. The Faculty has 10 other departments (in total 11) and 200 employees.

Some of the departments are language and translation departments (like the Department of German and Dutch Studies, the Department of English and American Studies, the Department of Romance Languages, the Department of Slavonic Studies).

Some others are based on the (national) Bulgarian language, for example the Department of Modern Bulgarian Language, the Department of Bulgarian Literature, the Department of General Linguistics an Old Bulgarian Studies.

From what I understand, your Department of German and Dutch Studies is a language department with some translation courses – not an exclusively translation department. Is that correct?

Yes, it is correct.

When, and why, have you started teaching translation?

I have started teaching translation in 2006 because this is what I have studied for and what I do as a freelancer.

When, and why, have you joined the Memsource academic program?

My university has joined the Memsource academic program in the academic year 2016-2017. This platform gives our students the opportunity to work online at home. So, they don't need to be in the university computer rooms to work with a CAT tool.

How many students attend your CAT courses every year? Are they BA, MA, or PhD students?

I have about 15 BA students and 3-4 MA students every year.

How did the implementation of Memsource change your courses?

I have changed my course for the BA students. This course deals more with translation itself, so I have had to implement Memsource in it. The students receive the translation task and have to chose a role in the translation project.

Then they translate the text at home and next week they come for class with the translated text and the TM. The reviewer makes changes during the class and at the end of the project they generate a final TM, which is accessible for all students. In my MA course, I haven't changed a lot, just added the new CAT tool, so the students know theoretically how to work with it. There is no time for "real" translation.

When selecting a text for the project, do you use texts from any specific field, e.g. legal, healthcare...? Are the texts edited for class purposes or do you keep them in a format resembling a real translation assignment?

I select the text from a specific field. There are two general fields: economics and legal. These two types of specialized translation are in our curriculum. Sometimes I edit the source text, especially in the beginning of the course Specialized Translation. Then I give my students real texts from my own practice.

You say that you use Memsource in one BA and one MA course. Is technology present in other lecturers' courses as well, or is its use limited to your courses?

Some other colleagues have such a course with English, French etc. students. I've my course with Dutch and German students. As I know, my colleagues don't use Memsource, although I did organize a workshop for them at the beginning of the summer semester.

When setting up a project with students, do they chose the role (PM, translator, reviewer) themselves or do you chose it for them?

I first (1st, 2nd, 3th lesson of the course) let them choose the roles. Then I choose it for them because some students choose always the same role. The goal of the course is that each student tries every role.

Does every student try all of the roles or do students only try some of them?

Everyone tries all of the roles.

Are your courses technology-centered or is technology just an addition to them?

My MA course deals solely with technology. In the BA course are CAT tool part of a translation course.

How do your students learn about Memsource functionality?

In the first class of the course, I show them how it works, the main features. We translate an example file in the class. Then, they can explore the tool themselves.

How does a common translation project your students work on look like?

I give the students a text. First, we discuss the text. Then, each student receives a role (PM, translator, reviewer). They translate the text at home with Memsourse. In the class, mainly the reviewer gets the word. The translator(s) defends his/their translation. There is a discussion. The PM has to generate the final version and the TM.

You say that a student in the PM role "has to generate the final version and the TM". Do students in the PM role do anything else apart from the project finalisation?

The PM role is most important, you know. The PM-student is responsible for the project. An example: if any translator do not do his job as homework, it isn't possible to discus the translation in the class. There is no work for the reviewer and so on. The lesson could fail. So, the PM-student have to handle this out (before the class) and to give this part of the source text to another student or to translate it himself.

How many projects do you do during the course with your students?

It depends of the length of the source text. Some projects are for example 6-7 pages and we dedicate 3-4 or more weeks to them as we have 2 lessons a week. There are also projects of 1 page which we do in one lesson. I give my students average 5-6 projects in the semester (1 semester = 15 weeks).

What roles in a translation project do your students try?

PM, translator, reviewer

Do you cooperate with any external non-profit organization or translation agency to provide your students with professional experience?

Not yet, but I plan to do this in the future.

Are there any obstacles when teaching CAT tools? If so, what are they?

I think, there are no obstacles with small groups (5-6 students). I have always small groups. Some of my colleagues (English) are afraid that this wouldn't work in their classes because they have groups of 15-20 students. But they haven't tried yet to teach translation with Memsourse.

Appendix V

What can you tell me about the department you work at?

Department of English, Faculty of Philosophy, University of Novi Sad, has 39 members of teaching staff. The Department is a combined language and literature department with translation courses at both BA- and MA-level studies. Some translation courses are obligatory (e.g. Principles of Translation), while some are elective (CAT tools, Translating Literature, etc.).

Is any translation technology present in any of the obligatory courses at your department?

There is no other course at my department which currently uses CAT tools. There is a discussion that a colleague would use Memsource for an introductory course in technical translation (undergraduate course). However, people from other departments (and at the intra-departmental study program in Master in conference interpretation and translation), use CAT tools (Memsource, Trados or Google Translator Toolkit, depending on preferences and their plan/mood for the given academic year).

Are you the only one at your department using translation technology with students?

Right now, yes. But, as I mentioned in the previous answer, a colleague of mine would like to start using Memsource for an introductory course in technical translation (undergraduate course).

When, and why, have you started teaching translation?

I started teaching translation in 2007 because I wanted to share with my students the knowhow I gained from working in translation industry.

When, and why, have you joined the Memsource academic program?

I joined the Memsource academic program in 2016 because I was looking for a professional cloud-based translation tool for my student's translation projects: something that could 100%

mimic the real translation workflow. Desktop solutions that we had used before (Trados and OmegaT) did not facilitate real-time, remote collaboration and teamwork.

How many students attend your CAT courses every year? Are they BA, MA, or PhD students?

About 32 students each year. They are all MA students.

How did the implementation of Memsource change your courses?

Memsource made it possible for me to create more realistic translation activities for my students and to overcome the limitations of having very few contact hours. I did not have to re-structure my course: Memsource actually enabled me to conduct the course in the way I had always wanted to conduct it - with a lot of practical, autonomous student activities and very few lectures.

How did your CAT course look before the introduction of Memsource?

Before introducing Memsource, the students did their collaborative projects in the offline mode: they translated parts of the text individually, then had meetings to solve problems, they designated people from the team to be terminologist and reviewers. My colleague and I would then receive the intermediary and final translation for assessment and review. With Memsource, they can collaborate in the cloud, they don't have to organize face-to-face meetings to solve problems and we (teachers) can always see what they are doing.

Are your courses technology-centered or is technology just an addition to them?

My course in CAT is technology centered. The BA courses which I teach (English grammar, Historical linguistics, etc.) are just technology-assisted.

How do your students learn about Memsource functionality?

We have two hands-on tutorials in the computer lab (6 hours in total) where students learn how to use Memsource. After that, students are divided into teams where they try different roles (manager, translator, reviewer, terminologist): the main idea is for these assignments to resemble real-life translation workflow.

During the course, do all of the students try all of the workflow roles?

That is the idea, but, so far, we haven't managed to make it happen 100%. Everybody gets to be a linguist/translator, a terminologist and a reviewer. However, only about 8 to 10 students (out of 30) get to be project managers

Do you also use source texts that resemble assignments by clients, i.e. they are not edited for educational purposes? And do you evaluate them as such, i.e. as if your students were professional translators?

Students do two large collaborative tasks and several smaller tasks. The two large tasks are realistic: a translation of a children's story (fiction task) and a translation of a help file, user manual, etc. (non-fiction). One year, the students even got "legal" documents to translate: reports by the Ministry of Education on accreditation of academic institutions (universities and faculties). The smaller tasks are modified. My colleague (Randall A. Major) and I evaluate the large tasks as if the students were professional translators. We use the QT21 (Multidimensional Quality Metrics (MQM)) as a framework for grading.

How does a common translation project your students work on look like?

In a team of 10 students, there is a project manager, five translators, two terminologists and two reviewers. Their job is to translate a small document (about 30 pages) for a client (professor) and show that they have followed the standardized procedure (ISO 17100:2015).

What roles in a translation project do your students try?

In a team of 10 students, there is a project manager, five translators, two terminologists and two reviewers.

Do you cooperate with any external non-profit organization or translation agency to provide your students with professional experience?

Yes. We cooperate with the Serbian Government Agency for EU Integrations and, occasionally, with local translation agencies which are the member of the Serbian Association of Translation Agencies.

Are there any obstacles when teaching CAT tools? If so, what are they?

The biggest obstacle in teaching CAT tools is relatively low computer literacy of the majority of students: although they are familiar with online services such as Google, Facebook, etc. they have no understanding of fundamental concepts, such as text-encoding, file formats, binary and XML-based files, etc.